



Memorandum

*To: Diane Salkie (USEPA)
Elizabeth Franklin (USACE)*

*From: Scott Kirchner (CDM Smith)
Andy Bullard (CDM Smith)*

Date: November 27, 2019

*Re: Summary of Oversight of Biota Tissue Collection
September 9–28, 2019
Lower Passaic River Restoration Project*

On behalf of the United States Environmental Protection Agency (EPA) and the United States Army Corps of Engineers (USACE), Kansas City District, CDM Federal Programs Corporation (CDM Smith) provided oversight of the Cooperating Parties Group (CPG) Current Conditions biota tissue collection event. This memorandum summarizes CDM Smith oversight observations of in-river field work and biota tissue processing activities conducted by CPG contractors Windward Environmental LLC (Windward) from Monday, September 9 through Saturday, September 28, 2019. Aqua Survey Inc. (ASI) and Solitude Lake Management (Solitude) provided vessel and tissue collection support. The following are included as attachments to this memorandum:

- Attachment 1: Photographs of biota collection and field processing activities
- Attachment 2: Copies of oversight logbook notes

The following summarizes pertinent information and observations collectively made each week during the course of the tissue collection event. During the biota collection event, Windward used two collection crews and CDM Smith oversight personnel were only able to accompany one crew at a time. Therefore, the number of species and individuals noted in CDM Smith's logbook entries may not necessarily reflect final numbers as collected by Windward. All tissue collection activities were staged from a floating dock in the Passaic River at 1 Madison Street, East Rutherford. The CPG had the dock installed for the 2009 biota/water/sediment sampling events. Windward also staged a field trailer there, in which biota tissue processing was performed.

All activities were conducted in accordance with Windward's September 2019 Current Conditions Addendum (Addendum #7) to the Quality Assurance Project Plan (QAPP), and with CDM Smith's Final QAPP for biota tissue collection dated September 23, 2019 (work was performed under a conditionally approved draft QAPP).

Week 1 Activities, September 9 through September 14, 2019. The first week of biota collection was initiated on Monday, September 9, 2019 and was performed through Saturday, September 14, 2019. Collection efforts were divided between two teams; one team that deployed fish/crab traps and trotlines by boat, and one team that waded into the river (above River Mile [RM] 16) to deploy traps

in locations where the water is too shallow for boat access. Due to limitations put on the New Jersey Department of Environmental Protection (NJDEP) Scientific Collecting Permit, Windward was not allowed to deploy gillnets during the first week of biota sampling. The wading crew also performed backpack electrofishing near and above RM 16 after deploying/checking traps. CDM Smith performed oversight, alternating between both crews throughout the week.

The shoreline crew drove from the staging area to set up traps starting just downstream of the Dundee Dam, including minnow traps, eel traps, and crab traps. Eel, crab, and minnow traps were commercial-style traps baited with cat food. Traps were deployed as far downstream as Location B006 (upstream of RM 16; note that Location B006 is a designation provided by Windward, and this location will be depicted on a figure in the CPG's ultimate summary report from the biota tissue collection event). After traps had been deployed/checked, backpack electrofishing was also performed by this team along the shore of the river, and across transects in the river that were expected to have high fish population.

The Windward crew that was aboard the boat also deployed traps throughout the river, starting at around RM 16 at location B007 (as above, Location B007 is a designation provided by Windward, and this location will be depicted on a figure in the CPG's ultimate summary report) and moving downstream in Area B (Windward designated RM 8.3 to RM 15 as Area A, and RM 15 to Dundee Dam as Area B). Minnow, eel, and crab traps were also deployed at these locations. In Area A, trotlines were deployed near the traps. The target species to be kept from these traps and trotlines included channel catfish (or other species such as white catfish), American eel, carp, sunfish (small forage-sized sunfish of various species), largemouth/smallmouth bass, white perch, and blue crab.

At each trap location, three traps (3 x eel, 3 x crab, and 3 x minnow) were deployed that were baited with a can of cat food into which several holes had been punched to allow the scent into the water column. For each trotline location, three lines were deployed approximately fifty feet apart and aligned perpendicular to the shoreline. Trotlines were weighted and buoyed at each end. These lines were baited by alternating chicken livers (wrapped in a small section of nylon pantyhose material) and commercial catfish dough (stink-bait) on approximately ten hooks on each line.

These traps and trotlines were left overnight and checked each day to retrieve any fish or crabs that had been caught. The fish/crabs that were caught were measured on the boat, and, if of appropriate size to be in the target range, were kept in labeled Ziplock bags on ice. The traps were redeployed after each check (without replacing the bait) and the trotlines were re-baited (if necessary) and redeployed each day to be left again overnight.

After the wading team completed checking the traps upstream in the morning, they returned to the staging area and boarded an electrofishing boat to attempt to catch fish in Area B. The electrofishing brought up a variety of fish, but only the target species were netted and retained for measurement.

All fish collected were taken back to the CPG field facility for processing, which included species identification, weight, length, gross external exam (for abnormalities, lesions, etc.), removal of scales for aging (from bass, perch, and sunfish), removal of pectoral spines for aging (carp and catfish), and determination of sex (if possible). Biota were labeled, packaged, and frozen prior to shipment to an analytical lab. Each target species had a target size range (as described in the Windward QAPP Addendum), though some fish that were outside of that range were also retained. CDM Smith did not

stay onsite for the entirety of each day's biota processing but witnessed enough of the processing to be satisfied that it was being done in accordance with the QAPP.

During the first week of collection, the target number of carp, perch, and sunfish had been collected in Area B, but few eel or catfish and only a single crab were collected. In Area A, very few eel, catfish, and bass, and a single crab were collected, but more than half of the target carp, perch, and sunfish were collected. Sunfish species included bluegill, pumpkinseed, red-breasted, rock bass, and crappie, though they were all combined into a single category of sunfish (forage fish). The table below was supplied by CPG as a summary of the first week's catch.

LPR Current Conditions Biota Sampling - Week 1 Catch Summary

includes catch for 9/9 through 9/14

	Week 1 Catch Summary			
Target Species	Total Catch	Actual Number within Target Size Range	QAPP Target Catch #	Target catch achieved (within target range)?
Area A (RM 8.3-15)				
American eel	4	2	36	No
Bass	22	7	36	No
Blue crab	1	0	36	No
Carp	18	17	36	No
Catfish	5	1	36	No
Sunfish ^a	93	45	60	No
White perch	20	16	36	No
Area B (RM 15-Dam)				
American eel	17	6	36	No
Bass	31	15	36	No
Blue crab	1	0	36	No
Carp	55	36	36	Yes
Catfish	10	4	36	No
Sunfish ^b	179	94	60	Yes
White perch	77	46	36	Yes

^a Sunfish species caught in area A (RM 8.3-15) include bluegill (n=19), pumpkinseed (n=62), red-breasted sunfish (n=10), and rock bass (n=2).

^b Sunfish species caught in area B (RM 15-Dam) include black crappie (n=1), bluegill (n=22), pumpkinseed (n=35), red-breasted sunfish (n=110), and rock bass (n=11).

On Saturday, September 14, 2019, all traps and trotlines were checked and removed from the water, because no sampling would be performed on Sunday, September 15, 2019.

Week 2 Activities, September 16 through September 21, 2019. Efforts during the second week of sampling were identical to the first week, with the exceptions that all work was performed from boats, and gillnets were deployed. Gillnets were deployed near each of the Area A trap locations. Only one gillnet was deployed in Area B because the water at sample locations above RM 16 is too shallow for a gillnet to function properly. On Monday, September 16, 2019, all biota sampling equipment was redeployed at or near the same locations along both river reaches. A few locations were moved slightly from their original locations due to poor catch results from the previous week. Windward again divided staff into two crews, one for traps, trotlines, and gillnets, and the other for electrofishing.

Fish/crab traps, trotlines, and gillnets were deployed on Monday, September 16, 2019 and were checked daily until Saturday, September 21, 2019, when they were again removed because no sampling would be done on Sunday, September 22, 2019. Passive sampling gear was allowed to soak overnight and was checked and re-baited (if necessary) daily. Electrofishing was also used to catch the target species throughout the week in the same manner as the prior week.

Gillnets ranging in length from 50 feet to 125 feet (with variable sized mesh panels) were deployed perpendicular to the shoreline, weighted with a lead line on the bottom and a float line on the top. The gillnets were anchored at each end, with buoys attached along the length to make them visible to passing boats.

On Thursday, September 19, 2019, some of the trotlines were baited with Powerbait (an artificial recreational fishing bait) and earthworms to try to improve catch rates, which for trotlines were very poor. With no catches on Friday, September 20, 2019, the bait was switched back to chicken livers and catfish dough. The bait in the traps was also modified, by adding raw chicken, which appeared to initially increase the number of eel collected. The chicken was retained in the traps and allowed to rot to increase the odor. The traps still included cat food.

On the collection boats, the biota were checked for size, and if close to the target range they were retained. All other specimens were released where they were collected, or if dead, discarded back into the river. All retained biota were transported to the staging area trailer for processing in the same manner as the first week's catch.

During the second week of collection, the target number of carp, perch, and sunfish had been collected in Area A, but few eel or catfish had been collected. A number of crabs were collected (36, with 16 within the target range), many of which were collected because the crabs were feeding on fish caught in the gillnets. In Area B, very few eel, catfish, and crab were collected, but more than half of the target number of bass had been collected. The table below was supplied by CPG as a summary of the first two weeks of biota sampling.

LPR Current Conditions Biota Sampling - Catch Summary through Week 2

includes catch for 9/9 through 9/21

Target Species	Catch Summary (Through Week 2)			
	Total Catch	Actual Number within Target Size Range	QAPP Target Catch Number	Target Catch Achieved (Within Target Size Range)?
Area A (RM 8.3-15)				
American eel	10	6	36	No
Bass	55	27	36	No
Blue crab	36	16	36	No
Carp	44	41	36	Yes
Catfish	30	9	36	No
Sunfish ^a	169	98	60	Yes
White perch	75	53	36	Yes
Area B (RM 15-Dam)				
American eel	19	8	36	No
Bass	43	23	36	No
Blue crab	2	1	36	No
Carp	55	36	36	Yes
Catfish	23	7	36	No
Sunfish ^b	179	94	60	Yes
White perch	77	46	36	Yes

^a Sunfish species caught in area A (RM 8.3-15) include bluegill (n=20), pumpkinseed (n=136), red-breasted sunfish (n=11), and rock bass (n=2).

^b Sunfish species caught in area B (RM 15-Dam) include black crappie (n=1), bluegill (n=22), pumpkinseed (n=35), red-breasted sunfish (n=110), and rock bass (n=11).

On Saturday, September 21, 2019, all traps, nets, and trotlines were checked and removed from the water, because no sampling would be performed on Sunday, September 22, 2019.

Week 3 Activities, September 23 through September 28, 2019. Efforts during the third week of sampling were the same as the second week. On Monday, September 23, 2019, all sampling equipment was redeployed at or near the same locations along both river reaches. However, a few locations were moved slightly from their original locations to try to improve catch rates. Efforts during the final week of sampling focused primarily on catching the remaining target species including smallmouth bass, catfish, and American eel, whose target goals had not been reached yet.

On Tuesday, September 24 and Wednesday, September 25, 2019, the electrofishing crew attempted evening cruises to determine whether they would have better catch success, or might encounter different species assemblage at night. The first night, the team collected a school of more than 20 brown bullheads, which were released rather than being kept as catfish. The evening electrofishing was no more successful than daylight electrofishing and was discontinued after the two evening cruises. On Wednesday, September 25, 2019, Diane Salkie (EPA) traveled to the site to participate in

oversight, and had a call with the CPG (Rob Law) to discuss that any additional catfish of any species should be retained.

Because target numbers of target sized carp, sunfish, and white perch were obtained by the end of the second week of sampling, additional specimens of these species were measured and weighed prior to being released back into the river.

During the third (and final) week of collection, the target number of carp, perch, and sunfish had been collected in both areas. The target numbers of bass and crabs had been collected in Area A, though not all were within the target size ranges. The target numbers of eel and bass had been collected in Area B, though not all were within the target size ranges. The table below was supplied by CPG as a summary of all biota collected during the three-week survey.

LPR Current Conditions Biota Sampling - Final Catch Summary

includes catch for 9/9 through 9/28

Final Catch Summary (through Week 3)					
Target Species	Total Catch	Actual Number within Target Size Range	QAPP Target Catch #	Target Catch Achieved (above min size)?	Target Catch Achieved (within target size range)?
Area A (RM 8.3-15)					
American eel	32	20	36	No	No
Bass	83	35	36	Yes	No
Blue crab	57	25	36	Yes	No
Carp	48	45	36	Yes	Yes
Catfish	44	19	36	Yes	No
Catfish (bullhead)	4	0	36	-	-
Sunfish ^a	191	119	60	Yes	Yes
White perch	78	56	36	Yes	Yes
Area B (RM 15-Dam)					
American eel	52	32	36	Yes	No
Bass	49	29	36	Yes	No
Blue crab	3	1	36	No	No
Carp	55	36	36	Yes	Yes
Catfish	28	8	36	No	No
Catfish (bullhead)	2	0	36	-	-
Sunfish ^b	179	94	60	Yes	Yes
White perch	77	46	36	Yes	Yes

^a Sunfish species caught in area A (RM 8.3-15) include bluegill (n=23), pumpkinseed (n=151), red-breasted sunfish (n=15), and rock bass (n=2).

^b Sunfish species caught in area B (RM 15-Dam) include black crappie (n=1), bluegill (n=22), pumpkinseed (n=35), red-breasted sunfish (n=110), and rock bass (n=11).

On Saturday, September 28, 2019, all traps, nets, and trotlines were checked and removed from the water, and the sampling event was ended.

Miscellaneous. A number of non-target biota species were either collected in the traps/nets (and released if alive or discarded if dead) or shocked to the surface and not netted, including: northern pike (*Esox lucius*), white suckers (*Catostomus commersonii*), American shad (*Alosa sapidissima*), gizzard shad (*Dorosoma cepedianum*), alewife (*Alosa pseudoharengus*), striped bass (*Morone saxatilis*), spot (*Leiostomus* spp.), yellow perch (*Perca flavescens*), and bluefish (*Pomatomus saltatrix*).

Several invasive species were collected during the three-week event, including: Chinese mitten crabs (*Eriocheir sinensis*) and Asian grass carp (*Ctenopharyngodon Idella*) which were euthanized and not returned to the river.

Birds were relatively sparse on the river, but there were a significant number of Canada geese (*Branta canadensis*). Other aquatic-feeding birds included: mallard duck (*Anas platyrhynchos*), black duck (*Anas rubripes*), great blue heron (*Ardea herodias*), white heron (*Ardea alba*), snowy egret (*Egretta thula*), gulls (*Larus* spp.), and a bald eagle (*Haliaeetus leucocephalus*) was seen catching fish in the river. A number of unidentified passerines and a large number of pigeons (*Columba livia*) were also observed along the river.

A few turtles were observed each day, mostly from a distance too great to allow reliable identification, but one eastern spiny softshell (*Apalone spinifera*) was collected in a crab trap (it was live and was released).

Attachment 1
Photographs of Collection and Field Processing Activities

Attachment 1 – Photographs of Field and Laboratory Activities



Photograph 1: Setting up minnow traps with cat food for bait near Dundee Dam.



Photograph 2: Deploying a trio of minnow traps just downstream of Dundee Dam.



Photograph 3: Tying a set of three eel traps together for deployment near Dundee Dam.



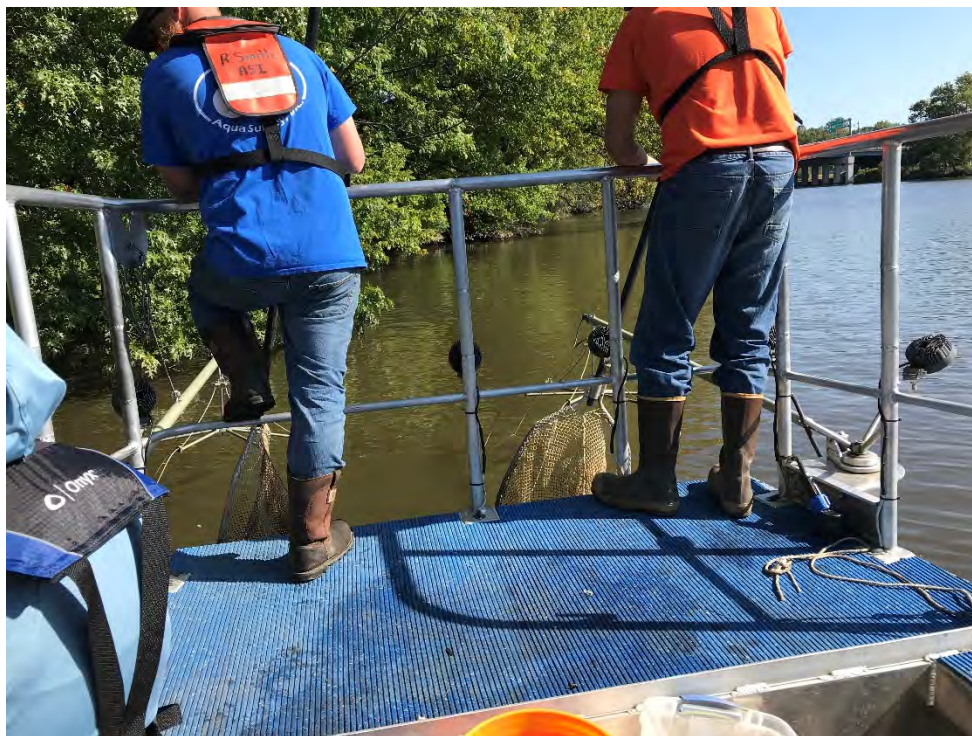
Photograph 4: Backpack electrofishing just downstream of Dundee Dam (visible in upper right).



Photograph 5: Backpack electrofishing and use of nets to collect stunned fish.



Photograph 6: Field processing of fish caught while electrofishing.



Photograph 7: Boat electrofishing along riverbank.



Photograph 8: Electrofishing under Route 21 bridge at night.



Photograph 9: Collection and processing of fish caught in eel trap.



Photograph 10: Trotlines prepared for baiting, then deployment.



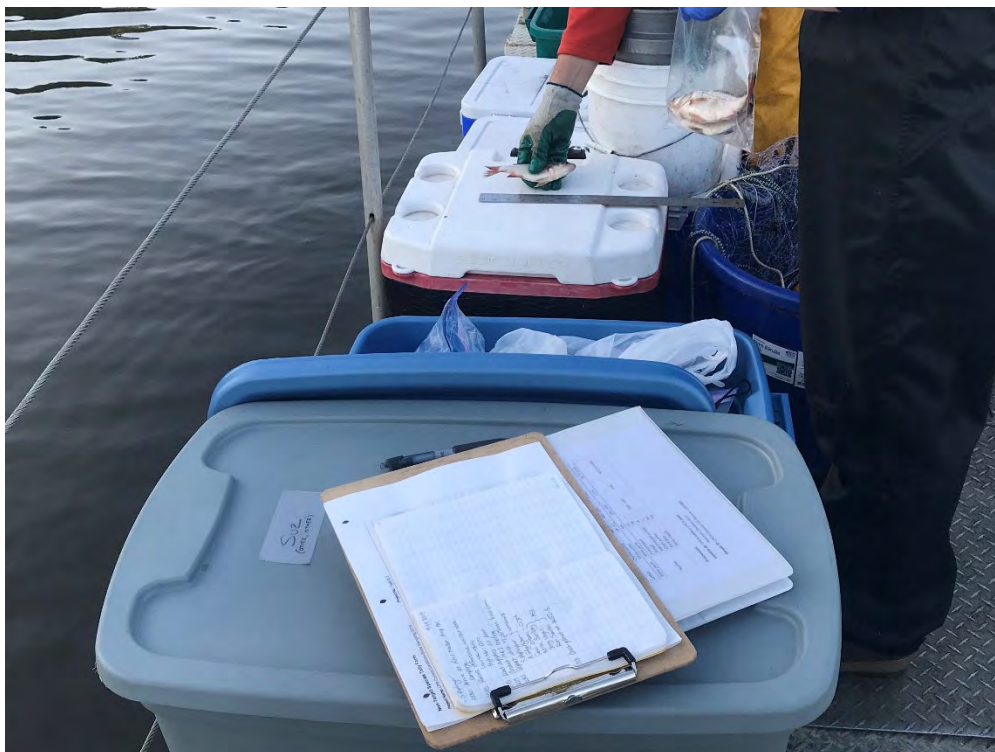
Photograph 11: Catfish caught on a trotline.



Photograph 12: Deploying gillnet at Location A032.



Photograph 13: Gillnet retrieval at Location A032



Photograph 14: Measuring white perch caught by gillnet.



Photograph 15: Blue crabs collected by gillnet at Location A035.



Photograph 16: Channel catfish at Location A038.



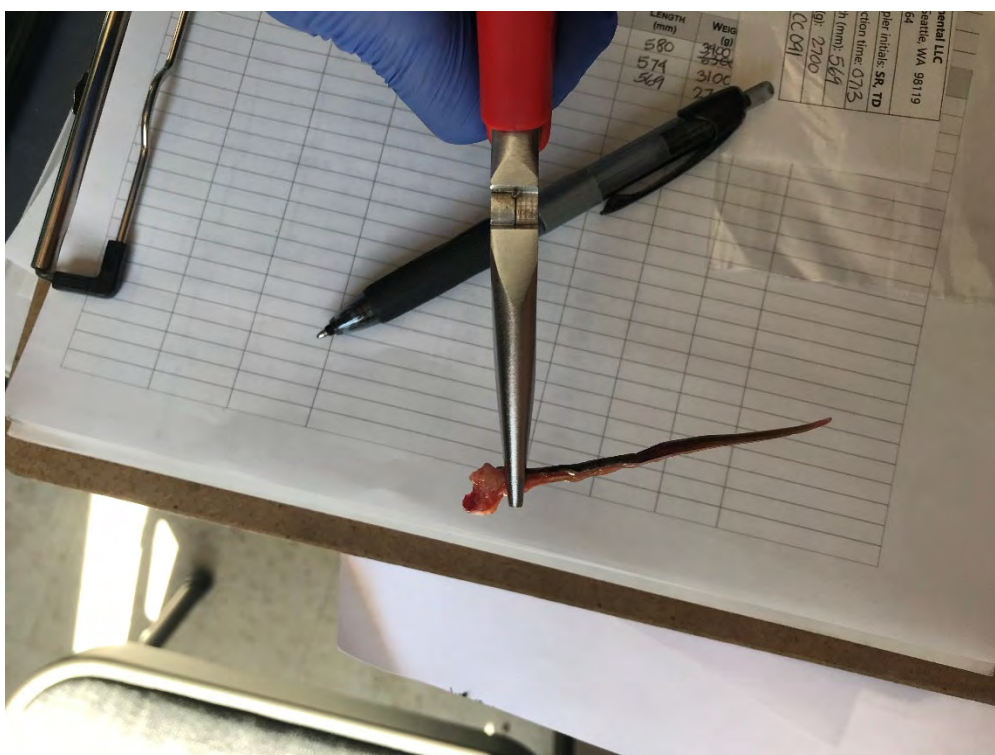
Photograph 17: Northern pike collected in a gillnet at Location B018.



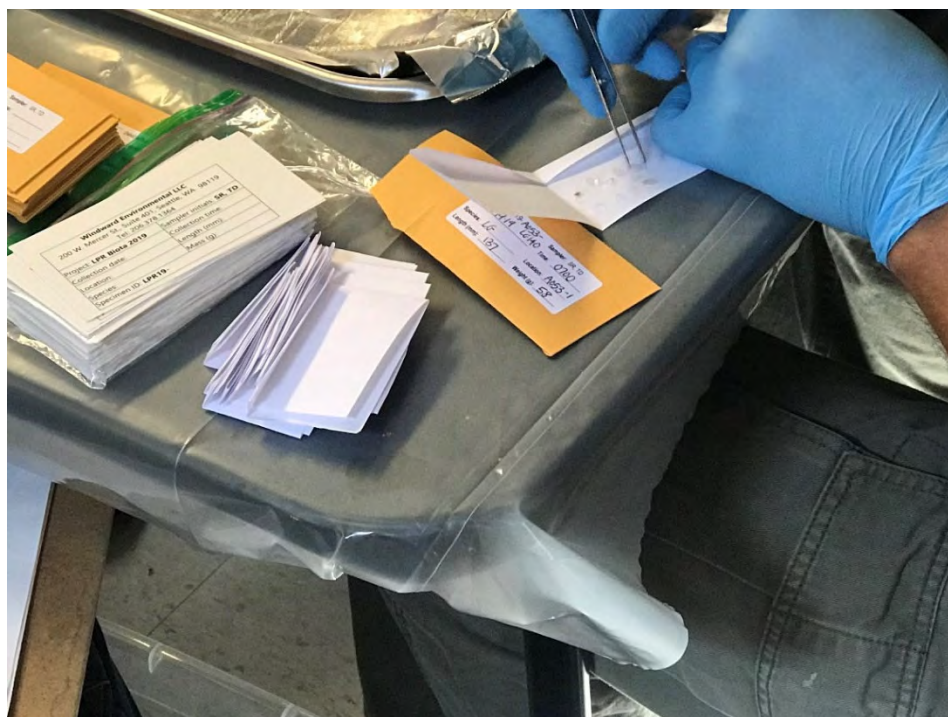
Photograph 18: Processing and measuring fish at CPG's field trailer.



Photograph 19: Processing common carp at CPG's field trailer.



Photograph 20: Removal of carp pectoral fin spine to be sent for aging analysis.



Photograph 21: Removal of fish scales for aging analysis.



Photograph 22: Eastern spiny softshell turtle caught in a crab trap.



Photograph 23: Grass carp caught by electrofishing boat.



Photograph 24: Mature bald eagle with fish caught from LPRSA.

Attachment 2
Copies of Oversight Field Logbook Notes



"Rite in the Rain"

ALL-WEATHER

FIELD

No. 350F


DIMMED ALKALI

OV4

CURRENT CONDITIONS

BLTA


Diamond Alkali 044 / Biota

8⁴⁵ TG arrives on-siteWeather: 80^{°F}, partly cloudyPPE: Level DPurpose: Oversight of biota sampling event9⁰⁰ Meet with WindWard and ASI crew to discuss mobilization and departure times. Currently waiting for all parties to arrive before we head out.9³⁰ Aquatic Survey Inc. (ASI) and WindWard loading boat with traps and equipment. TG will be on the boat or on shore depending on how much room is on the boat.9⁵⁰ TG has phone call with Andy Bullard to discuss schedules while crews continue setting up.10¹⁵ Names of WindWard crew members: Abby Hawley, Amy Shaw, Clare Detering, Thai Do, Suzanne Replinger, Amara Vander Wort.10³⁵ H+S meeting performed on the dock, boat safety, electrofishing safety, weather warnings. 

Diamond Alkali 044 / Biota

11⁰⁰ TG will go with Thai and his crew on the shore team. Load up truck (Solitude's truck) and prepare to head to location.11¹⁵ Load up mini-van and depart from trailer to head to location. Solitude truck following to site with all equipment and traps.11³⁰ Arrive @ location at River Drive and Semel Ave. Suit up in waders. Solitude crew is Vick.

ASI crew is Ron. Getting traps out of the truck and ready for setting up. Bringing traps to the shoreline to prepare them with cat food bait. Leave cars in park near traffic light. Will walk to river with all equipment.

11⁵⁰ Move to new park across from Riverview Mall 800, access at the other spot was too steep, new location about 500 ft. down the road. Will launch from there. 9/9/19 *Site in the Rain*

11⁵⁵ Set up preparations just South of the dam. Thai and TG to wade across river to look for good spot to deploy traps. Looking for slowing moving deep water to get sunfish.

12⁰⁵ opening cans of cat food to place in traps to collect minnows, sunnies, and crabs. A brick added to traps to weigh them down. ~25 ft. of rope attached to retrieve trap. Tie off buoys to traps. Minnow traps tied to ~~crab traps~~ each other and deployed. 3 traps tied together and spaced out in river, in a slower, deeper area Location B001.

12²⁵ Thai collects GPS coordinates at B001 while Amy and Abby set up next traps for deployment.

12³⁰ Traps set up @ point B002. Setting up eel traps for next deployment.

9/9/19

12⁴⁰ Eel traps set up @ point B003. Thai collects GPS coordinates. Points B001/2/3 are all near each other, south of the dam and north of the first bridge.

12⁴⁷ Meet up with Solitude/ASI to prepare for electrofishing.

13⁰⁰ Begin electrofishing just south of dam, and north of traps just set.

14⁰⁰ Back on shore after electrofishing. Walked up and down shoreline and across middle, checking under rocks. Put fish, crabs, and eels in buckets. Measuring fish to ensure they are all of adequate size. Not keeping fish that are not big enough. Wind-Vard crew measuring on board and comparing numbers to their SOP. They tracked all fish caught, measured them, and made sure it was logged. This electrofishing location has been GPSed and logged as B011.

14²⁵ Back @ van, after quick lunch, will head to next location.

9/9/19

little on the rain

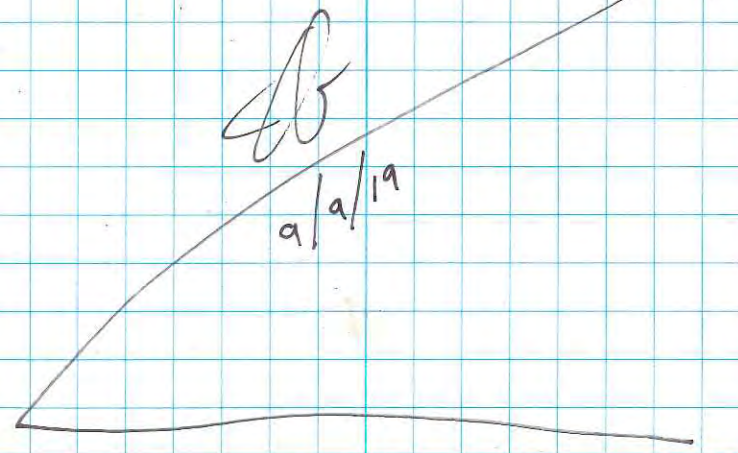
Location Rutherford NJ Date 9/9/19
 Project / Client LPR / USACE
Diamond Alkali 004 / Biota

- 1435 Arrive @ next location. Park van in a parking lot for "Evo Sports" across from Dollar General. Crew gets all equipment and hops fence to mobilize down to the river. Will set up more traps here + continue electrofishing.
- 1450 Begin setting up bait in traps. Location on river is directly across from a water tower. Tying Tie traps together and add buoys. Prepare to deploy.
- 1500 Deploy traps @ location B004.
- 1505 Deploy traps @ location B005.
- 1510 Deploy traps @ location B006
- 1515 Prepare nets, buckets, and rods to begin electrofishing. Crew goes out, begin fishing.
- 1545 Back on shore from fishing. Windward team begins measuring and bagging samples collected. Discarding fish not big enough. Thai GPS location, and names it B012.

[Signature] 9/9/19

Location Rutherford NJ Date 9/9/19
 Project / Client LPR / USACE
Diamond Alkali 004 / Biota

- 1610 Depart from location and head back to field trailer, where Windward team will officially weigh and measure all fish and eels caught today. TG will observe them weigh and measure some of the fish in order to understand the process.
- 1630 Spoke with Thai, said they will not be processing samples for at least an hour or two. TG will observe the processing on another day.
- 1645 TG offsite



Diamond Alkali OU4 / Biota

720 TG arrive at 1 Madison St.

Weather: 70°F, rainy

PPE: Level D

Purpose: Continue biota sampling oversight

730 Waiting for all members to arrive at the dock and load all equipment into boat and trucks. All traps placed yesterday will be checked today.

800 TG will be on the boat crew today. Boarding ~~dock~~ boat and preparing to head out to check traps that were placed yesterday. On boat with Suzanne, Claire, Amara (Windward) and Jerry + Kevin (ASI). Leave dock at 1 Madison St. and head north on river to start.

817 Arrive at first trap to check, bring onto boat, nothing in trap. Re-bait and re-release in river. Location B007.

820 B007 pulled up, nothing caught. ——— 9/10/19

Diamond Alkali OU4 / Biota

823 B007 checked, nothing caught. 3 crab traps set at B007, all checked with no results.

825 Arrive @ B008, first trap has 2 sunnies in it. Placed in bucket. Measured and bagged. 2nd trap empty. 3rd trap empty.835 Arrive at B009. 1st trap ~~to~~ bait hook has no catch. Refill bait bags with chicken livers and re-deploy hooks. Check 2nd trout line, stuck in the water on something, will come back later 4 when tide is low to try again. Check 3rd trap: snagged. Line broke. Will deploy new hookline.

900 New line baited and released.

907 Check traps @ B010.

Trap 1: 4-5 sunnies caught. All fish measured and documented.

Trap re-deployed in same spot.

Trap 2: ~7 fish and 1 eel.

* Reaching quota on sunfish very fast, need to discuss plan to keep them all, or let them go. *Let them go*

Diamond Alkali OU4 / Biota

- 9⁴⁰ Trap 3: ~8 sunnies.
 Arrive @ A001.
 Trap 1: No catches
 Trap 2: No catches
 Trap 3: No catches
- 9⁵⁰ Arrive @ location A002
 Trap 1: sunny and smallmouth bass
 Trap 2: 2 eel + 2 fish
 Trap 3: 1 small sunny.
 All fish measured + documented.
- 10⁰⁷ Arrive @ location A003.
 Trap 1: 1 small fish, throw back
 Trap 2: Small fish, keep
 Trap 3: Nothing
- 10¹⁵ Arrive @ location A004
 Hookline 1: snagged, will try again at lower tide.
 Line 2: No catches. Re-bait line and re-release.
 Line 3: snagged, will try again at a lower tide.
- 10³⁵ Arrive @ location A005
 Trap 1: small sunfish
 Trap 2: big sunfish
 Trap 3: empty

9/10/19

Diamond Alkali OU4 / Biota

- 10⁴⁷ Arrive @ location A006.
 Trap 1: empty
 Trap 2: empty
 Trap 3: empty
- 11⁰⁰ Stop at 1 Madison dock to use bathroom and eat a quick lunch.
- 11¹⁵ Arrive @ location A007
 Trap 1: 2 sunnies, keep
 Trap 2: empty
 Trap 3: ~6 small sunnies,
 All fish measured and documented and put in zip-lock bags if big enough
- 11²⁵ Arrive @ A008
 Hookline 1: large catfish (~2')
 Re-bait and re-release line.
 Line 2: no catches
 Line 3: ~~no catches~~ 1 large catfish
 Re-bait + re-release all lines.
- 12⁰⁵ Arrive @ A009
 Trap 1: empty
 Trap 2: empty
 Trap 3: empty
 Move all traps deeper into river.

9/10/19

Rite in the Rain

Location Rutherford NJ Date 9/10/19Project / Client LPR / USACEDiamond Alkali 044 / Biota

- 12¹⁵ Arrive @ A010
 Trap 1: empty
 Trap 2: empty
 Trap 3: empty
 Redeploy all traps in deeper water in the river
- 12³⁰ Arrive @ A011
 Trap 1: ~5 small sunnies
 Trap 2: many very small sunnies
 Trap 3: 1 eel + 3 small sunnies
 measure + document all fish
 Release all traps in deeper spot
- 12⁵⁰ Arrive @ A012
 Troutline 1: no catches
 Line 2: no catches
 Line 3: 1 large catfish
 Re-bait and release lines.
- 13¹⁵ Heading north, upstream to go to troutlines that were snagged this morning, now that tide lowered.
- 13⁴⁵ Arrive back at location upstream. Release line from snag, caught on tree, no catches. @ A004.
 Attempting to release other snagged line @ A004. Caught on a tree.

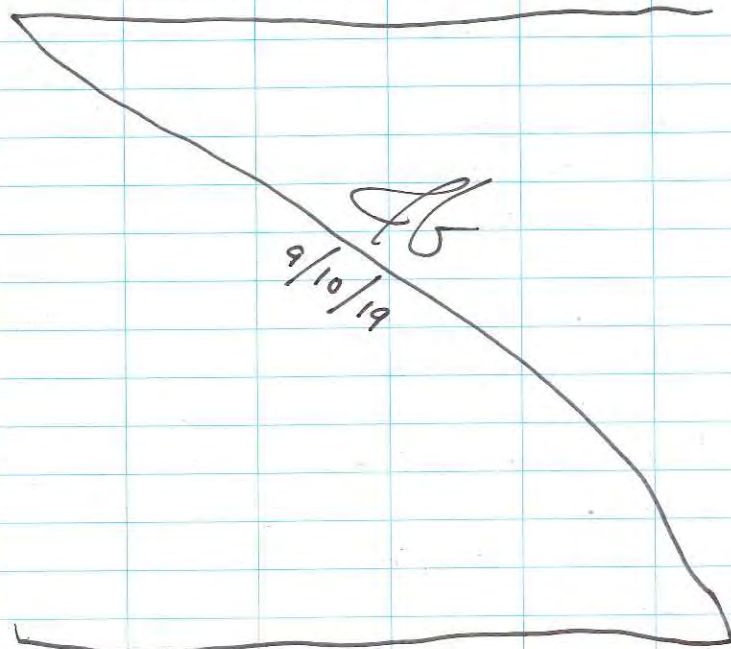
Location Rutherford NJ Date 9/10/19Project / Client LPR / USACEDiamond Alkali 044 / Biota

- 14⁰⁰ Line is cut and replaced with a new, baited troutline.
- 14²⁵ Arrive back @ B009 to release snagged troutline. Attempt to grab line tangled around a tree. Pull line into boat, ^{1 catfish} ~~no catches~~
 Replace bait and re-deploy line.
- 14⁴⁵ Head back to dock.
- 15¹⁰ Arrive back @ dock. TG will observe some of the processing tasks for the fish samples.
- 15³⁰ Processing of fish as follows:
 Create labels for scales to be taken off fish, and put in envelopes. Take all fish from one location and place on tin-foiled tray. ID fish officially, measure and weigh them. One crew member removes scales from the fish with forceps to be sent in envelope. Wrap fish in tin foil, place in zip-lock bag with label, and place in a second zip-lock bag. Tin foil and gloves are changed out after each location.

9/10/19
Kitt in the Rain

15⁴⁵ New location. Sort all fish by species on tray to make ID'ing easy. Measure and weigh fish before removing scales for ageing envelope. Measure from smallest to largest. Wrap fish in tin-foil, place in zip-lock bag with label, place in another bag for shipment. This process gets repeated on all fish caught from each day.

16²⁵ TG offsite, Sam onsite tomorrow.



7⁴⁵ TG onsite

Weather: 90°F, sunny

PPE: Level D, PFD

Purpose: Continue oversight of biota sampling event, collecting traps/electrofishing.

7⁵⁰ TG waits for crew to be ready to begin checking traps set on Monday.

8⁰⁵ TG will be on the boat again today to oversee trap collection. The other group will be electrofishing.

8²⁵ Boat departs dock, onboard is TG, Suzanne, Amara, Claire (Windward), and Jerry + Kevin (ASI). Heading upstream to begin checking traps.

8⁴⁰ Arrive @ BOO7

Trap 1: empty

Trap 2: empty

Trap 3: empty

8⁴⁵ Arrive @ BOO8

Trap 1: empty

Trap 2: empty

Trap 3: 1 blue crab, measured, documented and bagged.

TG 9/11/19 *Rite in the Rain*

Location Rutherford NJ Date 9/11/19Project / Client LPR / USACEDiamond Alkali OU4 / Biota9⁰⁰ Arrive at B009

Troutline 1: no catches

Line 2: one catfish

Line 3: one catfish. All fish measured, documented + bagged. Re-bait and deploy lines.

9³⁵ Arrive @ B010

Trap 1: 2 sunnies, both kept.

Trap 2: ~7 sunfish, 5 kept

Trap 3: ~7 sunfish.

9⁵⁰ Arrive @ A001

Trap 1: empty

Trap 2: empty

Trap 3: empty

10⁰⁰ Arrive @ A002

Trap 1: 1 eel (too small), 2 sunfish

Trap 2: 1 sunfish

Trap 3: empty.

10¹⁰ Arrive @ A003

Trap 1: empty

Trap 2: empty

Trap 3: empty

10²⁵ Arrive @ A004

Troutline 1: no catches

Line 2: no catches — *9/11/19*Location Rutherford NJ Date 9/11/19Project / Client LPR / USACEDiamond Alkali OU4 / BiotaLine 3: one carp, kept
Re-bait and redeploy troutlines.10⁵⁵ Arrive @ A005

Trap 1: empty

Trap 2: empty

Trap 3: empty. This trap is a cylindrical trap, is being replaced by an eel trap. Eel traps have been the most successful trap used.

11⁰⁵ Arrive @ A006

Trap 1: one crab, not blue crab*

Trap 2: empty

Trap 3: empty

* only blue crabs were asked to be kept. This was IDed to be a Chinese mitten crab. Kept for now until it is determined what should be done.

11¹⁵ Back at dock for quick break.11³⁰ Depart dock to continue checking traps downstream11³⁵ Arrive @ A007

Trap 1: empty

Trap 2: ~4 sunfish, kept all

Trap 3: 1 sunfish, kept

9/11/19 *Rite in the Rain*

Diamond Alkali 0U4 / Biota

1145 Arrive @ A008
 Troutline 1: no catches
 Line 2: no catches
 Line 3: no catches.
 Re-bait and deploy all lines

1210 Arrive @ A009

Trap 1: empty

Trap 2: empty

Trap 3: empty

1215 Arrive @ A010

Trap 1: empty. Replace this cylindrical trap with an eel trap.

Trap 2: empty

Trap 3: one crab, three sunfish.

1225 Arrive @ A011

Trap 1: 5 sunfish

Trap 2: 1 eel (too small), 1 sunfish

Trap 3: cannot find buoy, will come back after checking final station.

1245 Arrive @ A012

Troutline 1: no catches

Line 2: no catches

Line 3: no catches

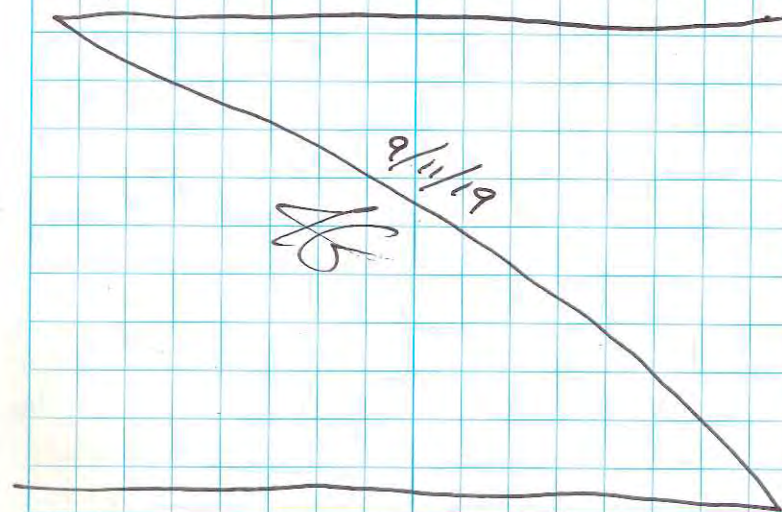
Re-bait and deploy lines — 9/11/19

Diamond Alkali 0U4 / Biota

1315 Back @ A011 to look for last trap. Trap found, must have drove by first time. Trap has ~5 sunfish. Depart from location and head back to dock.

1330 Back @ dock, Windward begins processing set-up. TG will stay and observe some of the processing. Processing will follow the same steps documented on 9/10/19. Observing the processing of carp and catfish as well.

1500 TG offsite, on-site @ 7:30 tomorrow.



Location Rutherford NJ Date 9/12/19Project / Client LPR / USACEDiamond Alkali OU4 / Biota7¹⁵ TG arrive onsiteWeather: 80°F, partly cloudy, chance of showers around 11amPPE: Level DPurpose: Continue oversight of biota sampling7³⁰ Meet up with Windward crew to discuss the plan for the day and which group TG will go with.7⁴⁵ Due to extra staff on echelectro-fishing boat, TG will be on trapping boat today. Boat departs dock and heads upstream.

H+S meeting given.

8⁰⁰ Arrive @ B007

Trap 1: empty

Trap 2: empty

Trap 3: caught on log near retrieval lay down, empty upon retrieval

8⁰⁵ Arrive @ B008

Trap 1: empty

Trap 2: trap caught under lay-down of trees. Retrieved, empty.

Replace cylindrical trap with an eel trap for better results.

Trap 3: empty ——— 9/12/19

Location Rutherford NJ Date 9/12/19Project / Client LPR / USACEDiamond Alkali OU4 / Biota8¹⁵ Arrive @ B009

Line 1: no catches, bait + redeploy.

Line 2: no catches, bait + redeploy

Line 3: snagged, will try a different angle. Still stuck. Will attempt to release snag during low tide.

8⁴⁰ Arrive @ B010

Trap 1: small sunfish, released.

Trap 2: Rope on trap snapped trap stuck on bottom of river, too deep to grab with boat hook. trap abandoned.

Trap 3: ~8 sunfish

8⁵⁵ Arrive @ A001

Trap 1: empty

Trap 2: empty

Trap 3: empty

9⁰⁵ Arrive @ A002

Trap 1: smallmouth bass, too small, released. Re-bait and release trap

Trap 2: empty, re-bait + release.

Trap 3: empty, re-bait + release

9¹⁵ Arrive @ A003

Trap 1: empty ——— 9/12/19

Rite in the Rain

Location Rutherford NJ Date 9/12/19Project / Client LPR / USACEDiamond Alkali OU4 / Biota

Trap 2: one sunfish, kept

Trap 3: empty. Remove all traps from this location. Windward is

moving traps from this location, and placing them near the island under the bridge just downstream from the original spot.

930

Arrive @ A004

Line 1: no catches, bait + deploy

Line 2: no catches, bait + deploy.

Line 3: no catches, bait + deploy.

All 3 lines were re-deployed about 75' downstream to test new spot.

955

Arrive @ A005

Trap 1: empty. Rebait + deploy

Trap 2: one crab and one smallmouth bass. Crab too small.

Trap 3: one perch, 3 sunfish.

Add more bait and deploy traps

1010

Arrive @ A006

Trap 1: 1 perch, kept

Trap 2: empty

Trap 3: empty. Release all traps back at location.

9/12/19

Location Rutherford NJ Date 9/12/19Project / Client LPR / USACEDiamond Alkali OU4 / Biota

1020 Stop back @ 1 Madison dock for bathroom break, and to grab more eel traps.

1040 Arrive @ A007

Trap 1: 1 small sunfish

Trap 2: 1 small sunfish

Trap 3: 6 sunfish. Measure and document fish, place in cooler.

1055 Arrive @ A008

Line 1: no catches, bait + re-deploy

Line 2: no catches, bait + re-deploy

Line 3: no catches, bait + re-deploy

1120 Arrive @ A009

Trap 1: empty

Trap 2: empty

Trap 3: empty. Release all traps back into same locations.

1125 Arrive @ A010

Trap 1: ~~one~~ 3 sunfish

Trap 2: empty, add more bait

Trap 3: empty, add more bait, re-deploy all traps back at location.

1135 Arrive @ A011

Trap 1: one sunfish, re-bait trap

9/12/19

Rite in the Rain

Location Rutherford NJ Date 9/12/19
 Project / Client LPR / USACE

Diamond Alkali 004 / Biota

Trap 2: 1 sunfish

Trap 3: float submerged will retrieve after next location.

11⁵⁵

Arrive @ A012

Line 1: ~~no~~ one eel, kept. Re-bait and re-deploy line.

Line 2: no catches, bait + re-deploy

Line 3: no catches, bait + re-deploy.

12²⁰

Back at A011 looking for final trap buoy. Unable to find trap, a new eel trap will be deployed to replace lost one.

12³⁰

New trap deployed @ A011, depart location and head back to dock. Rain begins.

12⁴⁵

Back on dock. TG calls Ethan Nedean (Biodiversity), leaves a voicemail. Hope is to swap schedules and get an understanding of the work they will be doing, want to avoid getting too close in our electrofishing vessel.

13³⁰

TG offsite, Dan Cooke will provide oversight tomorrow.

[Signature]

9/12/19

Location Rutherford, NJ Date 9/13/19
 Project / Client LPR / USACE

Diamond Alkali 004 / Biota DAN COOKE

7AM DE ARRIVE 1 MANDISEN ST. STAGING AREA

7:15 MET @ TRAIL DO

WEATHER: 60' SUNNY, WIND CALM, 14 COMING FROM PRE: LEVEL, WINDS

PURPOSE: BIOA SAY PLING OVERSIGHT

8AM DROVE TO B003 JUST DOWNSTREAM OF 1ST WITH TAY, ABBY HAWLEY, AMY SHAW

WALKED OUT TO TRAPS - 3 BUOYS WITH

3 TRAPS EACH, 3 EEL TRAPS AT 1 BUOY

3 MINNOW TRAPS AT 1 BUOY AND 3 CRAB

TRAPS AT 1 BUOY - B003, B002, B001

- COLLECTED 2 SMALL MOUTH, BUT 1 WAS TOO

SHORT, 1 SUNFISH WAS NOT KEPT

8:15 DROVE AT B003 - WALKED BACK TO VAN

IN PARKING LOT IN GARFIELD OFF

LIVER ROAD

8:25 ARRIVE AT EV SPORTS PARKING LOT

ON RIVER RD WALKED DOWN SLOPE

THRU TIDE PLAIN ~ RM 6.5

- WALKED OUT TO B004, B005, B006

LOTS OF CORBICULA SMELLS ON

RIVER BOTTOM, NO VEGETATION, SAW

ONE BLUE CRAB CLAW

[Signature] 9/13/19

Rite in the Rain

Location RUTHERFORD, NJ Date 9/13/19
 Project / Client LPR / USACE
DIAMOND ALKALI OUY / BIOGA

837 - NO FISH TO KEEP, ONE PUMPKINSEED
 RELEASED, RETURN TO VAN
 - BATS IN TRAPS - CAT FOOD - WAS ON
 AT BOTH TRAP LOCATIONS + NOT
 REPAIRED

900 RETURNED TO 1 MADISON TO MUSTER
 SAMPLE + GEAR AND SWITCH OVER TO
 ELECTROFISHING

9:20 SAFETY MTG, BOARD BOAT, NICK
 VICENZO, RON SMITH (AST), THAI, ARBY,
 (SOLING) AND AMY + NERDED UPSIDE

9:35 MARINE ~ ^{HAWLEY} RM 15.1 DOWNSIDE OF
 BRIDGE AT 8TH ST.
 - START STOCKING NEAR DOWNSIDE
 ON RIGHT BANK - LOCATION BO14

9:45 - 1 LARGE CAMP
 - BOAT USING SPIDER RIG AND 6 DROPS
 CATCH ~ 29 AMPS, 132 VOLTS, ~ 3900 WATTS
 - IDLE SPEED SLOWLY UPSIDE, POKING IN
 AT EACH DEEPING IN THE OVERHANGING
 TREES

10:05 REACH BO14 GOES NORTH TO THE BRIDGE
 UPSIDE OF THE CONFLUENCE WITH THE
 SADDLE RIVER - THE PASSAGE ST. BRIDGE

DO 9/13/19

Location RUTHERFORD, NJ Date 9/13/19
 Project / Client LPR / USACE
DIAMOND ALKALI OUY / BIOGA

10:15 FULL MOON HGT MOON, WATER IS
 VERY HIGH, MAY BE PARTIALLY
 RESPONSIBLE FOR VERY LOW CATCH
 PER UNIT EFFORT

10:20 CAUGHT 1 SMALL WHITE PERCH, THREE
 BARE BECAUSE ALREADY HAVE ALL THE
 WHITE PERCH NECESSARY
 - STOPPED STOCKING TO MOVE TO A NEW
 LOCATION ~ 500 YD DOWNSIDE OF
 SADDLE RIVER

10:30 SIMULATED STOCKING REACH BO16
 ~ 100 YD DOWNSIDE OF OLD RAIL BRIDGE
 NEXT TO ROAD BRIDGE
 - 1 SMALL MOUTH 23 CM
 - 1 SMALL MOUTH ~ 22 CM

10:40 - NOTE THAT RIVER HAS NO SUBMERGED
 AQUATIC VEGETATION, WHERE BOTTOM
 IS VISIBLE IT IS ROCKY/GRAVELLY WITH
 A LOT OF TRASH AND DEBRIS - TREES,
 SHOPPING CARTS, FLOATABLES

1043 LARGE CAMP

9/13/19 (DC)

Location RUTHERFORD, NJ Date 9/13/19
 Project / Client LPR/USACE
DIAMOND MARI OUT / BIOTA

- 10:45 1 LARGE CAMP
 - NOTE THAT VERY FEW BIRDS HAVE BEEN SEEN ON THE WATERS, A FEW MALLARDS AND A FEW CANADIAN GESE
- 1046 - 1 LARGE CAMP
 1 LARGE CAMP
 - 50 PM, ALL CAMP VERY LARGE ~ 8-9 LB
- 10:50 - SWITCHED TO LEFT BANK - FOUND A REACH SCHOOL OF CAMP ALL LARGE
BOIT - CAUGHT ~ 20, THREW SOME BACK AS TOO LARGE, MISSED ~ 10
- 11:05 - STOPPED STOCKING TO ASSESS CATCH
 - 21 CAMP RETAINED
- 11:10 - RESUMED STOCKING - USED 6 MORE TARGET SIZE TO ADD TO THE CAMP PROCESSED EARLIER IN THE MORNING TO COMPLETE 36 TOTAL - GOT 5
- 11:24 1 SMALL MOUTH BASS
- 11:30 BACK AT BRIDGE, BY MID-MORNING PILING, SCHOOL OF SMALL MOUTH AND SUNFISH
 - 1 SMALL MOUTH
- 11:35 - 1 EEL
- 11:37 - 1 EEL

9/13/19 (10)

Location RUTHERFORD, NJ Date 9/13/19
 Project / Client LPR/USACE
DIAMOND MARI OUT / BIOTA

- 12:05 - 3 KAYAKERS APPROACHED THE BOAT, ONE WAS ETHAN FROM BROOKLYN MUSEUM THEY WERE PADDLING UPSTREAM WEARING WETSUITS, WITH VIEWING BUCKETS (BUCKETS WITH VIEWING PORT SEALED ON THE BOTTOM) STOPPED TO THE BACK
- 12:15 SAW A LARGE TURTLE, COULD NOT ID
- 12:25 STOPPED STOCKING AFTER 2:25 PM JUST DOWNSIDE OF THE 8TH ST BRIDGE - PULLED DOWNSIDE TO RETURN TO STAGING AREA
- 12:45 MUNDO 1 MADISON DOCK TO OFF-LOAD FISH + GEAR
- 13:05 TEAM BROUGHT ALL COLLECTED FISH TO STAGING MATERIAL + PUT ICE IN CONTAINERS + SET UP TABLE IN PARKING LOT, CONTINUED TO PUT FISH IN SKEET
- MET W. TRAP / PROLINE TEAM - SUZANNE ROYLING, CLAUDE ^{PETERLIN} ANITA AND DAVID
- 13:50 - STARTED FISH PROCESSING, CAMP ARE WEIGHTED TO NEAREST GRAM USING A PESOLA-TYPE SPRING SCALE LAY ON ALUMINUM FOIL, PECTORAL SPINE REMOVED + PLACED IN ENVELOPE

9/13/19 (10)

Rate on the Rain

Location RUTHERFORD, NJ Date 9/13/19Project / Client LPR / USACEDIAMOND RIVER OUT 4 / BIOTA

13:55 CAMP MEASURED FOR TOTAL LENGTH ON A FISH BOARD, WRAPPED IN FOIL, AND DOUBLE-BAGGED WITH SAMPLE LABELS, THEN PUT ON ICE IN A COOLER.

1400 SUNFISH INDIVIDUALLY WEIGHED, 10 SCAPES REMOVED AND PLACED ON PAPER, WRAPPED IN FOIL, PLACED INDIVIDUALLY IN BAGS
- SMALLER FISH (SUNFISH, BASS, CIL) WERE PROCESSED INSIDE TRAILER

15:10 - FINISHED PROCESSING FISH

15:25 - BACK ON ELECTROFISHING BOAT TO RICK, THAI, ABBY, AMY AND CLARKE TO STOCK IN AREA A AT LOW TIDE SINCE HIGH TIDE MAY HAVE MADE FINDING FISH MORE DIFFICULT.

15:30 START STOCKING JUST UPSTREAM OF BRIDGE BELOW STAGING AREA UNION AVENUE BRIDGE
LOCATION A016 - LEFT BANK

15:35 - SEVERAL LARGE CAMP, ONE SMALL CAMP THROWN BACK, WHITESUCKER DID NOT COLLECT
- SCHOOL OF SMALL (~4") ALEWIFE, DID NOT COLLECT

- 2 CAMP, BLUEGILL WHITE PERCH
SMALL MOUTH BASS! 9/13/19

Location RUTHERFORD, NJ Date 9/13/19Project / Client LPR / USACEDIAMOND RIVER OUT 4 / BIOTA

16:05 STOPPED STOCKING 35 MIN AT WOODEN STRUCTURE COLLECTED MULTIPLE SMALL FISH

- HEADED BACK TO MADISON RIVER

16:15 - RETURNED TO DOCK, OFFLOADED CATCH

16:30 - TEAM TRANSFERRING PROCESSED FISH TO ALPHA ANALYTICAL EQUIPMENT
- DC LEAVES SITE

(90) 9/13/19

Location Rutherford NJ Date 9/14/19Project / Client LPR / USACEDiamond Alkali OU4 / Biota7¹⁵ TG arrives onsiteWeather: 70°F, partly sunnyPPE: Level D, PFDPurpose: Biota sampling oversight7³⁰ TG meets with WindWard crew and ASI + Solitude crew. Begin talks about what the plan is for today.7⁴⁵ TG boards dock with Suzanne, Claire, Amara (WindWard), and ~~Allen (ASI)~~, Jerry (Solitude). Head upstream to pull all traps and keep them on the boat. Other members on boat are Kevin + Jerry (ASI).8⁰⁷ Arrive @ B007

Trap 1: empty

Trap 2: empty

Trap 3: empty

All traps had bait removed and float/blick taken off. Traps stored on boat.

8¹⁵ Arrive @ B008

Trap 1: empty

Trap 2: 2 small sunfish, red-breasted

Trap 3: empty. Traps pulled + kept

Location Rutherford NJ Date 9/14/19 53Project / Client LPR / USACEDiamond Alkali OU4 / Biota8²⁰ Arrive @ B009

Trotline 1: nothing, removed from water

Line 2: nothing, removed from water

Line 3: nothing, removed from water.

8³⁷ Arrive @ B010

Trap 1: 2 eels. Kept 1. Remove trap.

Trap 2: ~4 sunfish. Remove trap

Trap 3: ~2 sunfish, Remove trap.

8⁵⁰ Arrive @ A0018⁵⁰ Trap 1: one crab. too small, removed

Trap 2: empty, removed

Trap 3: empty, removed

9⁰⁵ Arrive @ A002

Trap 1: empty, removed

Trap 2: empty, removed

Trap 3: Rope broke up retrieval yesterday, will attempt to remove trap during low tide next week.

9¹⁰ Arrive @ A003

Trap 1: empty, removed

Trap 2: empty, removed

Trap 3: empty, removed.

9¹⁸ Arrive @ A004

Trotline 1: nothing, removed

TG 9/14/19

Rite in the Rain

Location Rutherford NJ Date 9/14/19

Project / Client LPR / USACE

Diamond Alkali OU4 / Biota

- 9³⁰ Line 2: nothing, removed
Line 3: nothing, removed
Arrive @ A005
Trap 1: empty, removed
Trap 2: empty, removed
Trap 3: empty, removed
- 9³⁷ Arrive @ A006
Trap 1: one catfish, ^{not} kept. Remove trap
Trap 2: empty, removed
Trap 3: empty, removed.
- 9⁴⁵ Stop back @ dock to unload traps that were stored on boat from the morning. Bathroom break. Depart from dock and head out to get rest of traps.
- 10¹⁰ Arrive @ A007
Trap 1: one sunfish, remove trap
Trap 2: 3 sunfish, one crab, removed
Trap 3: empty, removed.
- 10¹⁵ Arrive @ A008
Line 1: nothing, removed
Line 2: nothing, removed
Line 3: nothing, removed.
- 10³⁰ Arrive @ A009
Trap 1: empty, removed
Trap 2: empty, removed

Location Rutherford NJ Date 9/14/19

Project / Client LPR / USACE

Diamond Alkali OU4 / Biota

- Trap 3: unable to find, will come back during low tide to locate.
- 10⁴⁰ Arrive @ A010
Trap 1: 3 sunfish, remove trap. Keep 1
Trap 2: empty, removed
Trap 3: one sunfish. remove trap
- 10⁴⁵ Arrive @ A011
Trap 1: empty, removed
Trap 2: ~6 sunfish, remove trap
Trap 3: ~5 sunfish, remove trap
- 11⁰⁰ Arrive @ A012
Line 1: nothing, removed
Line 2: nothing, removed
Line 3: nothing, removed.
- 11¹⁰ Head back to A009, to check to see if we can spot the missing trap. Unable to find trap.
- 11¹⁵ Head back to dock to unload traps
- 12⁰⁰ TG offsite to go to Edison water house to gather supplies for Monday sampling event.


9/14/19

Rite in the Rain

Location Rutherford NJ Date 9/23/19

Project / Client LPR / USACE

Diamond Alkali OU4 / Biota

7¹⁵ TG onsite

Weather: 90°F, sunny

PPE: Level D

Purpose: Oversight of biota sampling event

7³⁰ TG meet with Thai Do at dock, loading up boats for today.7⁴⁵ Board pontoon boat that will be deploying traps. On board with Kevin + Jerry (ASI), Mike Yarnes, Kate McPeck, and Aaron (Windward). Will head up stream as far as we can.8¹⁵ Arrive upstream. Will deploy gillnet first. Location is B018. Gillnet deployed perpendicular to shoreline. GPS coordinates taken.8³⁰ Drive downstream. Will set up trotlines. Trotline deployed @ location B019. Will deploy 2 ~~more~~ lines so 2 are deployed @ B019. all lines deployed.9⁰⁰ Arrive @ location A058. Deploy gillnet perpendicular to shore.

9/23/19

Location Rutherford NJ Date 9/23/19

Project / Client LPR / USACE

Diamond Alkali OU4 / Biota

9⁰⁵ Deploy trotline downstream of the gillnet @ location A063. Deploy 2nd trotline at location ~50 ft downstream of first line. 3rd line deployed near downed tree, ~100 ft downstream of 2nd line. A0589³⁰ Heading back upstream to ~~B018~~ A058 to replace recently deployed gillnet with a smaller one, replacing because the smaller one will catch more of what they are looking for than the big one. While removing gillnet, smallmouth bass caught in net. Will keep bass to be measured and processed later.9⁴⁰ Re-deploy gillnet @ A058. Head back to dock. Need to get ice for the fish just caught.10⁰⁰ Headed to meet up with Thai's boat to exchange traps.10³⁰ Give traps to other boat. Will now work way upstream deploying nets/traps and trotlines. Looking for good places to deploy nets.

9/23/19

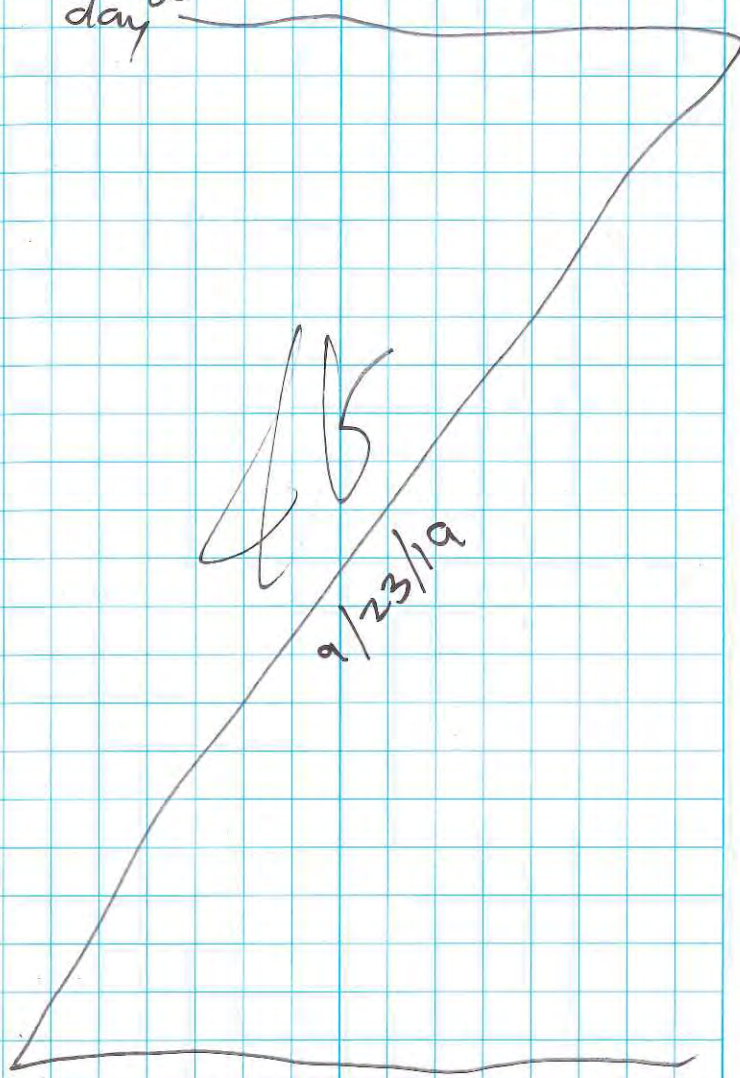
Ritter in the Rain

Location Rutherford NJ Date 9/23/19Project / Client LPR / USACEDiamond Alkali OU4 / Biota

- 10⁴⁵ Deploying gillnet @ location A062 South of RM 8.4 buoy, along the East Bank.
- 10⁵⁵ Deploy gillnet @ location A061 Just south of debris processing dock.
- 11²⁰ Deploy gillnet @ location A060 South of crew dock launch and north of RM 12.0 buoy. This is the large gillnet.
- 11⁴⁰ Deploy trotline @ location A065 North of RTE 3 bridge, on East bank.
- 11⁴⁵ 2nd trotline deployed @ A065
- 11⁵⁵ 3rd trotline deployed @ A065
- 12¹⁵ Deploying trotline @ location A064, on west bank.
- 12³⁰ 2nd line deployed @ A064
- 12⁴⁵ 3rd line deployed @ A064
- 12⁵⁰ Deploying gillnet @ location A059 Just south of RM 12.9 bridge, on west bank.
- 13³⁰ Back @ dock. Wind Ward begins processing fish that were caught today. Electrofish boat still on water.

Location Rutherford NJ Date 9/23/19Project / Client LPR / USACEDiamond Alkali OU4 / Biota.

14³⁰ TG offsite. Onsite @ 8am next day



Location Rutherford NJ Date 9/24/19

Project / Client LPR / USACE

Diamond alkali 044 / Biota

7³⁰ TG onsite

Weather: 80°F sunny

PPE: Level D

Purpose: Oversight of biota sampling

8⁰⁰ TG on electrofishing boat today with Thai Do, Jenna Rheuben, Brian Church (Windward), and Solitude captain

Depart dock, head upstream

8²⁵ B021. Pull up traps

Trap 1: empty

Trap 2: empty

Trap 3: empty. Bait + release

8³⁰ B020

Trap 1: 2 sunfish, 2 small eels

Trap 2: empty

Trap 3: ~6 sunfish.

8⁴⁰ B022

Trap 1: 3 sunfish, 1 small eel

Trap 2: ~12 sunfish, 1 eel (kept)

Trap 3: ~3 sunfish

9⁰⁰ A066

Trap 1: ~3 striped bass, 1 sunfish

Trap 2: empty

Trap 3: empty. ——— 9/24/19

Location Rutherford NJ Date 9/24/19

Project / Client LPR / USACE

Diamond Alkali 044 / Biota

9⁰⁷ A067

Trap 1: Rope snapped upon retrieval, unable to remove trap at this time.

Trap 2: empty

Trap 3: empty.

9¹⁸ A068

Trap 1: ~5 eels (3 kept)

Trap 2: ~6 eels (all kept)

Trap 3: 1 sunfish

9³⁰ A069

Trap 1: empty

Trap 2: empty

Trap 3: empty

9⁴⁵ A070

Trap 1: 1 crab, too small

Trap 2: empty

Trap 3: empty.

9⁵⁵ A071

Trap 1: 1 eel. (kept)

Trap 2: empty

Trap 3: 1 eel (kept)

10¹⁰ A072


Trap 1: empty

Trap 2: ~4 eels (3 kept)


——— 9/24/19 *lots in the rain*

Location Rutherford NJ Date 9/24/19Project / Client LPR / USACEDiamond Alkali 004 / Biota

- 10²⁰ Trap 3: 2 small eels
A073
Trap 1: empty
Trap 2: empty
Trap 3: empty
- 10²⁷ A074
Trap 1: 1 sunfish
Trap 2: 1 sunfish
Trap 3: 2 sunfish
- 10³⁵ Begin electrofishing just north of
RTE 7 Passaic River Bridge.
Area A053. 1 eel (kept). bass
(kept)
- 10⁵⁵ A052. Start shocking.
- 11⁰⁰ Back @ A053, south side of
RTE 7 Bridge. Start shocking.
1 eel (kept).
- 11¹⁰ Cross river, on opposite bank now.
A052. Start shocking.
- 11⁴⁰ Arrive @ B015. Begin shocking.
Looking to catch more sunfish to
get a better distribution. 1 bluegill,
1 pumpkin seed, ~9 sunfish total
from this location.

 9/24/19
Location Rutherford NJ Date 9/24/19Project / Client LPR / USACEDiamond alkali 004 / Biota

- 12⁰⁰ Head back to dock to begin processing.
Thai will also be shocking this evening
beginning at 18:00.
- 12³⁰ Back @ dock, unloading boat. Wind-
Ward is preparing samples for a lab
shipment. Need to wait to process
until eels are frozen.
- 12⁴⁵ Phone call with Andy Bullard
regarding plans for oversight tonight.
- 13³⁰ Back @ dock. Observing processing of
fish samples. Crew processing
catfish + eels caught today. Same
process as normal. Measure, weigh,
label, and remove fin from fish for
aging analysis.
- 14⁴⁰ WindWard crew placing all samples
just bagged in freezer. Cleaning up
trailer and making sure samples
are ready for shipment. Waiting for
lab courier to arrive.
- 15⁰⁰ TG fbsite

 9/24/19

Rite in the Rain

① RUTHERFORD NJ 9/16/19
DIAMOND ALKALI CUY LPR/USACE BIOTA
STAGING AREA MADISON ST RUTHERFORD

07:00 DAN COOKER/ANIL on ^{DC} ~~RIGHT~~ SIDE
OVERCAST, 74°, SPOTTY LIGHT RAIN
LOW TIDE

PURPOSE - BIOTA COLLECTION USING TRAPS,
TRAILINGS, GILLNETS, ELECTROFISHING

07:10 WINDWARD TEAM ARRIVED - THAI DO, ^{JENNA} RUBIN
^{DC} ~~EMER~~ ABBY, AMY, ANNA, SUZANNE REPLINGER

- BECAUSE ALL GEM WAS PULLED AFTER
SATURDAY'S SAMPLING, IT HAS TO BE MOVED
FROM STAGING AND RE-DEPLOYED

0800 - SHOCKING BOAT DEPARTED TO RONSUITA (ASI)
ASOLITUDE CAPTAIN, THAI, AMY, ABBY TO
PLACE TRAPS DOWN RIVER

0815 - TRAP/GILLNET CREW DEPARTED DOCK ON
ASI PONTON BOAT WITH ^{STEPANO} CHRIS AND
KEVIN (ASI), SUZANNE ANNA, JENNA,
AND DAN COOKER

- SAFETY BRIEF START DOWNSTREAM

0855 - JUST UPSTREAM OF SECOND RIVER CONFLUENCE
MOVING RM 8.4, PREP TO DEPLOY GILL NET
NEAR ^{LEFT} ~~RIGHT~~ BANK - MID-INCOMING TIDE - ~10:00

- 125' GILLNET RUN PERPENDICULAR FROM
NEAR THE ^{LEFT} ~~RIGHT~~ BANK, WEIGHTED WITH BRICKS
AND FLOATS ON BOTH ENDS

DC 9/16/19

RUTHERFORD, NJ 9/16/19 ②

DIAMOND ALKALI CUY LPR/USACE BIOTA

0905 - COLLECTING GPS COORDINATES AT REEF
BY ^{LEFT} ~~RIGHT~~ BANK GILLNET A032

- 50' TRAILING PREPARED WITH ~8 HOOKS
EACH EVERY OTHER HOOK ALTERNATED
WITH "CHARLIE BLOOD 8" CATFISH DOUGH
(STINK BAIT) AND CHICKEN LIVERS WRAPPED
IN SMALL SECTIONS OF PAINT HOSE TO
KEEP THEM ON THE HOOKS

0915 - TRAILING DEPLOYED PERPENDICULAR TO
THE SHORE, FROM THE ^{LEFT} ~~RIGHT~~ BANK
JUST UPSTREAM OF THE GILLNET

- TWO MORE TRAILINGS DEPLOYED ~50'
APART, PERPENDICULAR TO SHORE

- EACH END OF TRAILING WEIGHTED WITH A
BRICK AND MARKED WITH A SMALL FLOAT

0930 - DEPLOYED LAST TRAILING A-032, A033

0955 - DEPLOYED ANOTHER SET OF 3 TRAILINGS
FROM ^{LEFT} ~~RIGHT~~ BANK AT ~RM 9, ~300YD
UPSTREAM OF PASSAIC RIVER PARK IN
NORTH MLLINGTON A-034

1010 - FINISHED DEPLOYING TRAILINGS AT A034

- SAW ONE GOOSE IN A TRAP, 3 CANADA GOOSE, BUT
VERY FEW OTHER BIRDS ON THE RIVER

- LARGE AMOUNT OF FLOATING DEBRIS AND TREE LIMBS

DC 9/16/19

- ③ RUTHERFORD, NJ 9/16/19
DIAMOND HULL OUCH LPR/USACE BIODA
- 1025 - DEPLOYED 125' GILL NET A-035 NEAR
LEFT BANK
- 1035 - DEPLOYED 3 MOTRINES OFF LEFT BANK, JUST
UPSTREAM OF THE PARK AVENUE BRIDGE, ADJACENT
TO THE KINGS COURT PLAZA
- 1045 - DEPLOYMENT COMPLETE FOR MOTRINES A-036
- 1055 - OBSERVED FLOCK OF ~40 CANADA GOOSE
- DEPLOYED 3 MOTRINES PERPENDICULAR TO THE
RIGHT BANK ACROSS FROM LYNDHURST
BASEBALL FIELD A-037
- 1105 - LAST MOTRINE DEPLOYED JUST DOWNSTREAM
OF THE CONFLUENCE WITH THE THIRD RIVER
- 1120 - DEPLOYED GILL NET JUST DOWNSTREAM OF
CONANT BRIDGE DOWNSTREAM OF THE
ROUTE 3 BRIDGE A-038
- 1135 - DEPLOYED 50' x 1 1/2" MESH GILL NET A-039
FROM LEFT BANK ~500 YD UPSTREAM
OF THE MERCID BOAT CLUB IN RUTHERFORD
- MOTORED UPSTREAM TO STAGING AREA
- 1200 - LEFT STAGING AREA TO HEAD UPSTREAM
- SAW 2 GREAT BLUE HERONS JUST UPSTREAM OF
8TH ST. BRIDGE
- 1210 - DEPLOYED GILL NET B-018 PERPENDICULAR FROM
LEFT BANK

③ 9/16/19

- RUTHERFORD, NJ 9/16/19 ④
DIAMOND HULL OUCH LPR/USACE BIODA
- 1220 - DEPLOYED 125' GILL NET TO VARIABLE
MESH SIZE, PERPENDICULAR FROM RIGHT
BANK B-019
- 1230 - BECAUSE OF THE SHALLOW WATER (~7.5' AT
MID-TIDE) AND THE 8' HEIGHT OF THE NET,
TEAM TIED BUOYS TO MARK THE FLOAT
LINE SO IT WOULD NOT BE A HAZARD
TO NAVIGATION
- 1235 - ALL MOTRINES + GILL NETS DEPLOYED
JAN COOKS TRANSFERRED TO STOCKING
BOAT AND MOTRINE/GILL NET CREW
RETURNED TO STAGING AREA
- STOCKING TEAM ONLY COLLECTED 1 EEL
AND A FEW NON-TARGET SPECIES SO FAR
- 1305 - STARTED STOCKING ALONG RIGHT BANK
JUST UPSTREAM OF THE MERCID BOAT
CLUB IN RUTHERFORD - A-040
~32 AMPS, 140 VOLTS, 4700 WATTS
CAMP III
SMALLMOUTH BASS III
WHITEPERCH III
PUMPKINSEED III
THESE NUMBERS
ARE CLOSE ESTIMATES
TO BE CONFIRMED
- 1325 - STOPPED STOCKING JUST UPSTREAM OF
ROUTE 3 BRIDGE

④ 9/16/19

⑤

RUTHERFORD, NJ

9/16/19

DIAMOND ALKALI OUY LPR/USACE BIODA

1730 1041 STOCKING UPSTREAM ALONG LEFT
BACK FROM RT3 BRIDGE TO UPSTREAM~~CARP 100 TO BIG POKER~~

PUMPKINSEED IIII

CATFISH I

WHITE PERCH I

SMALLMOUTH I

THREE WINDS ARE
CLOSE ESTIMATES TO
BE CONTINUED1355 - STOPPED STOCKING JUST UPSTREAM OF THE
MERRY BOAT CLUB1400 - RETURNED DOWNSTREAM TO THE RT3 BRIDGE
A 1042 TO RESUME STOCKING UNDER THE BRIDGE

WHITE PERCH IIII

CARP III

PUMPKINSEED VIII

NUMBERS ARE
ESTIMATES

14:15 - STOPPED STOCKING AFTER COUNTRY BRIDGE

14:20 - STARTED STOCKING LEFT BANK UNDER COUNTRY BRIDGE
ENDING UPSTREAM

CARP I

PUMPKINSEED IIII

SMALLMOUTH BASS IIII

WHITE PERCH IIII

NUMBERS ARE CLOSE
ESTIMATES TO BE
CONTINUED

1426 STOPPED STOCKING JUST UPSTREAM OF RT3 BRIDGE

1455 BACK TO MADISON DOCK, UNLOND FISH

AND GEAR

1504 DC LEFT SITE

⑤ 9/16/19

RUTHERFORD, NJ

⑥

DIAMOND ALKALI OUY LPR/USACE BIODA

9/17/19 - 0645 R Chenok arriving

0710 - Meet Suzanne Replinger of
Windward at their trailerWeather: Sunny 60°, high expected
to be 77°Task: Biotin Sampling with Aqua Survey
Personal - Thai Do - Windward

Suzanne Replinger

Amara Van Der Vort

Abby Hawley

Amy Shaw

Jana Rheuben

One crew - ~~front line~~ + gillnetsSecond crew traps, electrofishing, and
electro fishing.

Aqua Survey Personal -

Ben German

Jerry Vogel

Ron Smith

Kevin Sandoz

0800 RC is with crew to check traps
and possibly electro shock. Ben & Ron of
Aqua Survey + Thai & Amy of Windward.0836 Arrived at set of 3 traps A020

Pa ch 9/17/19

(7)

Rutherford NS

9/17/19

Diamond Alkali, only LPA/USACE Bats

- kept one perch for middle trap
trap. re 9/17/19

Downstream trap was empty

Upstream trap had silver perch that
were too small and a pumpkin seed that
was too large

- Redeployed at 7' deep

0847 A021 crab trap empty - redeployed
at 7' deep

0850 Second trap at A021 empty

0851 Third trap at A021 empty
Redeploy traps.

0853 Conductivity > 4000 uS/cm
measured by Ben of Agre Survey.

0857 Location A022 Depth 15'

1st trap empty. Return to original

9/17/19 ~~Location~~ BC location but too deep.

Moved slightly to re deploy.

0900 2nd trap empty. Return

0901 Third trap empty, except small crab -
Did not keep crab. Return trap to water.

0907 Location A023 -

First trap empty in 4' water

Redeploy in 6-7' water

No C 9/17/19

(8)

Rutherford NS

9/17/19

Diamond Alkali, only LPA/USACE Bats

0909 2nd trap - 6' water, empty. Redeploy.

0911 3rd trap - 12' water. Empty, Redeploy.

0913 Location A024.

1st trap 10' water. Empty. Return.

0916 2nd trap empty. Return.

0920 3rd (middle) trap. Kept 1 white perch.

Retained 1 white perch & 1 hogchoker -
too small.

0928 A025 - 6' deep.

1st trap empty - Redeploy at 6' -

Trap was originally 4' deep.

0930 2nd trap. 1 Dead pumpkin seed. Kept -
1 dead perch - too small.

0932 - 3rd trap empty

0937 A026 - 6' deep

1st trap empty. Redeploy

0939 2nd trap empty

0941 3rd trap empty

0945 A027 2nd trap - white perch too small.1st trap was empty re 9/17/19

0948 3rd trap 1 bass. Kept

0958 A028 1st trap 1 yellow perch.

Not Kept. Redeploy 1st trap upstream. Only
from first line.

No C 9/17/19

⑨ Rutherford NJ

9/17/19

Diamond Alkal: 004 LPR/USACE Beta

0959 A028 2nd trap empty Redeply

10:02 3rd trap empty Redeply

10:05 A029 1st trap two white perch
too small to keep.

2nd trap - 1 pumpkinseed - keep.

10:09 2nd trap - empty

10:15 A030 - 1st trap

1st trap empty Redeply

10:16 2nd trap empty

10:18 3rd trap empty

- Ben reports water conductivity 700 μ S/cm

10:22 A031 - 1st trap empty - Redeply

photo - 2nd trap - 1 crab - did not keep.

Redeply trap.

photo - 3rd trap eel too small - not kept.

pumpkin seed - keep

2 small pumpkinseeds - not kept.

Redeply trap.

10:33 Head to trailer.

11:05 Head back out for electro-fishing.

11:24 Begin electro fishing at location 044

11:43 - Electro fishing at location 45

11:53 Stop electro fishing

Loc 044 - 3 carp 3 pumpkinseed 1 white perch

11:56 ALC alive

Rutherford NJ

9/17/19

⑩

Diamond Alkal: 004 LPR/USACE Beta

Location 45 3 white perch
1 pumpkinseed

12:05 Begin electro fishing Location 46

12:22 End Location 46 - Got 2 carp.

Ben reports conductivity 2900 μ S/cm

12:27 Begin electro fishing Location 47

12:36 Just upstream of bridge conductivity

is 700 μ S/cm, reported by Ben.

12:44 End Location 47 -

1 carp 1 large north bass

1 pumpkinseed AC 9/17/19

13:16 Location B-014 - electro fishing

(This location is well upstream of
fool's bar).

13:22 - No fish collected at B-014

13:33 B-015 - begin electro fishing

13:38 - Nothing collected at B-015

13:47 B-016 - begin electro fishing

1 large rock bass

11 small rock bass

1 Cat fish

14:16 - End B-016 / Begin B-17

11 small rock bass

11:56 ALC 9/17/19

(11) Authenticated NT 9/18/19

Diamond Alkali 004 CAP/USACE Bista

1436 - End B-17.

1500 Returned to trailer

Unloading fish + equipment.

Fish to be processed for analysis

ROC leaves for

MOC

Authenticated NT

9/18/19

Diamond Alkali 004 CAP/USACE Bista (12)

0705 R Chenante arrive.

Partly Cloudy, 60°. Expected high - 70s.

Task Bista Sample

Windward Staff - Suzanne Riplinger

Amy Shaw

Thao Do

Amara Vander Voort

Aaron Edgington

Jenna Rhea

Agua Survey Ron Smith

Ben German

Terry Vogel

~~0740~~ 0740 RAC 9/18/19 Kevin Sunday

0740 RC on boat with Amy, David, Suzanne

Jerry + Kevin for trot lines + gill nets.

Others are on the other boat for trot
+ bottom fishing.

0753 - Retrieve crab trap - empty.

Keep on board.

0820 - Prepare to pull gillnet A032

0836 - Pulled net + retrieved fish.

Boys measuring fish

0840 - Re-deploy net A032

0845 Pulling trot lines at A033

⑬ Rutherford NJ 9/18/19
 Diamond Alkali 004 LPR/USACE Bait

0850 Redeployed baitline, pulling 2nd line.

0855 Redeployed 2nd line.

Pulled & deployed 3rd line at A-33

Nothing on these lines. No take.

A-32 Gillnet take:

49 Gizzard shad

8 white perch

1 blue crab

1 striped bass

0910 A-34 ~~33~~ baitline 34 (set of 3)

0915 Pulled & redeployed A-34 ~~33~~

No fish. RC 9/18/19 34-1

0917 Pulling A-34-2 rope snapped off.

0920 Could not retrieve A-34 - will

make a new one to deploy. RC 9/18/19

0926 Pulled & redeployed A-36 ~~33~~ 34-3

No fish.

0933 Deploy new ~~A-34~~ ³⁵ baitline 34-2

0954 Gillnet A-35

1006 Pulled & redeployed

3 blue crabs

2 catfish

24 gizzard shad

2 white perch

RA C 9/18/19

Rutherford NJ

9/18/19

Diamond Alkali 004

LPR/USACE Bait

(14)

1014 A-36 3 trout lines

1027 Pulled two of the three - no fish.

Middle position not visible - likely will find tomorrow morning at lower tide level.

1029 Brake up on baitline at 36-

make a new one to redeploy.

1042 Deployed replacement line.

1048 Location A-37 - 3 baitlines

1103 Pulled & redeployed lines - no fish.

A-38 Gillnet

1117 Pulled & redeployed A-38 gillnet

(location just downstream of

Canal Cynohurst dam).

5 Gizzard shad

1 catfish

3 carp

5 perch

1 sucker

1130 Gillnet A-39

1137 Pulled & redeployed A-39

14 white perch

1 sucker

1 carp

2 catfish

RA C 9/18/19

⑤ Lutherford NT
Diamond Alkali OUL

9/18/19

LAROSTACE Biota

1200 ~~AC~~ ^{AC 9/18/19} B 018 Gillnet

1207 - Cribnet + redeployed ~~AC~~ ^{AC 9/18/19} B 018

20 white perch

2 yellow perch

1210 Pull gillnet B 019

1220 Re deploy

1 No.thern Pike

1 Carp

7 White perch

1255 Return to dock.

1430 - Processing of fish is underway
AC keeps fish

Mya  9/18/19

Lower Passaic River
Biota Oversight

9/19/19

(16)

05:50 → 50 arrives at
CPG trailer.

Weather → clear skies
Low humidity ~ 70°F

07:13 → Arrive at Station A032
Station A032

Gill Net → Type
Retrieve Gill Net and will
deploy

Total Catch

→ 2 White Catfish *

→ 1 Blue Crab *

→ 9 white perch (150 - 220 cm)

→ 2 Bluefish (230 - 350 cm)

→ 1 carp *

→ 3 white perch* (~~9 thumb~~)

→ 1 striped bass

→ 22 Gizzard Shad

→ 1 spot

* Species kept include:

1 carp, 1 Blue crab,

2 white catfish, and 3
white perch.

Lower Passaic River
Biotin Oversight
9/19/19

(17)

07:35 → Retrieve the
trot line at station A033.

A033

No catch

Winkward retrieves trot
line and re-baits w/ a
combination of power-bait
and earth worms.

Winkward will re-deploy
trot line and gill net north
of Belleville Turnpike Bridge.

07:48 → Re-deploy
trot line on eastern shoreline
of Passaic (A033-4)

There are 3 trot lines
deployed perpendicular to
shoreline.

07:55 → Re-deploy
gill net ~ 100 yds north
of Belleville Turnpike
Bridge. Net is placed
along eastern shoreline
perpendicular to bank.

Lower Passaic River
Biotin Oversight

9/19/19

(18)

08:15 → Arrive at station
A034 and retrieve trot lines.

Trot Line 1

Total Catch is 1 Chum Catfish

Trot Line 2

No catch

Trot Line 3

No catch

Winkward re-deploys
all 3 trot line in same
location.

08:55 → Arrive at station
A035 to retrieve gill net.

Gill Net Catch

2 Chum Catfish

1 striped bass

9 Blue Crab (8 keepers)

3 White Perch (3 retained)

32 Gizzard Shad

4 Sucker

Re-deploy Gill Net at
same location.

09:27 → Arrive at
A036 ~ 100 yards north

Lower Passaic River
Benthic Oversight
19/19/19

up De Jossy Bridge.

Retrieve first line

Trat Line 1

No catch

Trat Line 2

No catch

Trat Line 3

Underwater; will retrieve

the trawler tomorrow

09:47 → Arrive at station

A037 and retrieve trap lines.

~100 yards south of
Yonkers River along the
western shore of Passaic
River.

Trat Line 1

No Catch

Trat Line 2

No Catch

Trat Line 3

No Catch

& Re-deploy all 3 trat
lines.

Lower Passaic River
Benthic Oversight

9/19/19
20

10:10 → Arrive at station
A038 and retrieve gill net.

Total Catch

2 → Carp

1 → Channel Catfish

4 → Gizzard Shad

2 → Striped Bass (2 returned)

1 → Blue Crab

9 → White Perch

1 → Yellow Perch

& Location is along eastern
shoreline ~100' south of
Conrail Bridge.

All species with the exception
of the channel catfish and blue crab
were returned to the Passaic River.

10:35 → Arrive at
station A039 and pull
gill net.

Total Catch

1 catfish & 24 White Perch

2 Blue Crab

11:08 → Arrive at
station B018 and

Lower Passaic River

9/19/19

(21) Bait Overhaul

retrieve gillnet.

Total Catch

1 → Blue crab ^{2 No fish kept}
1 → Northern Pike ^{is reemployed}
1 → Sucker

11:20 → white Perch

11:20 → Arrive at BO19
and retrieve gillnet.

Total Catch

1 → Carp
1 → Catfish
1 → Sucker
11 → Gizzard Shad
10 → White Perch
1 → American Shad

12:35 → Arrive back
at CPG facility and load
off equipment & fish

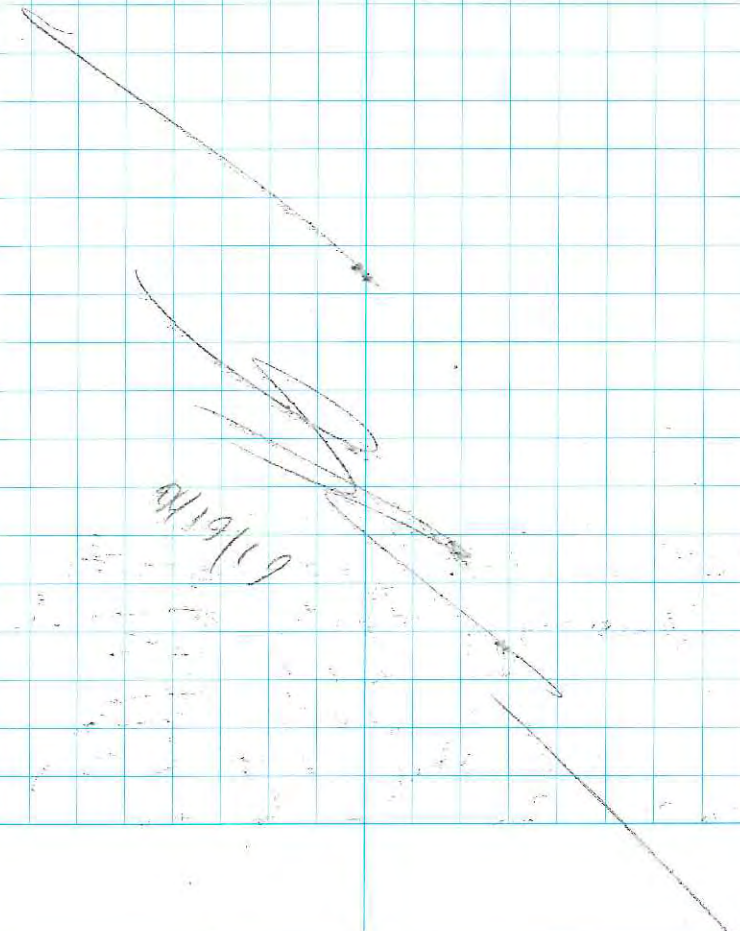
13:00 → Windward starts
processing fish for tender
Fish are measured for
weight and length. In
addition the peduncle for
otoliths are removed

Lower Passaic River
Bait Overhaul

9/19/19

(22)

to be analyzed for age
of fish. Fish are placed in
aluminum foil and put into
freezer to be sent off
for laboratory analysis.
14:30 → SO departs Site.



Lower Pressure River
Bite Oversight
(23)

06/01/19

06:00 → SO arrives on
Site and checks in at
trailer.

Weather → Clear skies
82°F

PPE → Level D Malfunction

06:25 → Depart CPG
dock en route to station
A033 to check / retrieve
traps.

06:30 → Suzanne Replinger
& Windward gives health
safety briefing. Topics discussed
include slips/trips/falls; wearing
proper PPE, & staying aware
of all times.

07:00 → Arrive at station A033

Station A033

No catch - Trot Line 1

Trot Line 2

No catch

Trot Line 3

⊗ Redeploy all 3 trot

Lower Pressure River
Bite Oversight

9/20/19

(24)

lines and bait with chicken
liver

07:20 → Arrive at station
A032:

Trot Catch

22 → Gizzard Shad

2 → Catfish

5 → Blue Crab (3 keepers)

40 → White Perch

1 → Striped Bass

⊗ Re-deploy Gill Net

07:55 → Arrive at station
A034

Trot Line 1

No catch

Trot Line 2

No catch

Trot Line 3

No catch

08:30 → Arrive at
station A035

Gillnet Catch

Blue Crab → 2 (1 keeper)

Gizzard Shad → 15

(25)

1 striped bass

* Only keep 1 Blue crab
and return other speared
back to Passaic River!

08:50 → Arrive at station
A036 and retrieve first line

Trot Line 1

No catch

Trot Line 2

No catch

Trot Line 3

No catch

* Re-bait first lines with
worm and re-deploy

09:20 → Arrive at

Station A037

Trot Line 1

No catch

Trot Line 2

No catch

Trot Line 3

No catch

* Re-deploy first lines
on opposite side of river.

(26)

eastern shelve.

09:42 → Arrive at
station A038

Gillnet

2 → Carp

1 → Catfish

2 → Gizzard Shad

2 → Sucker

8 → White Perch

1 → Rock Bass

Re-deploy gillnet and continue
to next station.

10:10 → Arrive at station

A039

Gillnet Catch

~~1 → Catfish~~

2 → Blue Crab

44 → White Perch

1 → Smallmouth Bass

1 → Carp

10:50 → Arrive at station

B018 and retrieve gillnet.

Gillnet Catch

1 Spot

7 White Perch

Lower Potomac River
Bait Overight

9/20/19

(27)

0550 → Arrive at BO19
at Chicago District
Tand Catch

2 → Northern Pike

1 → Catfish

6 → Carp 1 Pumpkin

1 → Sucker 1 Greenish

12:30 → Arrive back at
CPG facilities and unload
fish & supplies.

12:00 → Unloading begins
processing fish. During
processing, measurements are
recorded including length &
weight. Gender is documented
on white card. 50 overcoats
fish processing.

Partial fin is removed from
carp and catfish while 12
individual scales are removed.
Brain, smaller species including
pumpkinseed, smallmouth bass,
bluegill etc.

Rutherford NJ
Diamond Alkali only

9/21/19 (18)

CAA/USACE Bait

0550 - Rac. arrive on site.

58°F Mostly clear. Partial high 80°F

0608 - Depart in electrofish boat

Windward personnel on bat. Thai Do

Brian Church, Mike Yarnes

Solitude personnel Ben German -

Sus of Aqua survey

0620 Arrive at A0-46 for

electrofishing

0642 - Begin electrofishing at A0 47

(opposite side of river from A0-46)

0654 - End A0 47 run.

A047 1 carp

1 bass

1 perch

3 pumpkinseed

A046 4 perch

4 bass

2 pumpkinseed.

0700 A057 - Begin electrofishing.

0719 Finished A057

3 carp

1 bass

2 perch

3 pumpkinseed

Rd C

9/21/19

Rutherford NS

9/21/19

(29) Diamond Alkali 004 CAR/USACE

0729 Begin electro fishing at AO 53

0745 - Got 1 eel AC 9/21/19 eel at

AO 53. Will begin pulling traps.

There is a regatta today that the crew needs to be mindful of.

0750 AO 20

3 white perch to keep

2 small perch weighed & released

0756 AO 21 - all empty

0758 AO 22 - all empty.

0805 - AO 23 - Crab traps - all empty

Note - trap locations are 3 traps per location.

0811 AO 24 - (Crab - few small) to keep weight 70g.

0815 - AO 25

1 Pumpkin seed - returned.

2 spot tail shiners - too small

1 blue crab - too small

3 white perch - too small.

0820 - AO 26 - Crab traps - Empty.

0830 AO 27

1 Pumpkinfish keep. 1 Pumpkinfish too big

1 Crab - small

2 bluegill - return.

RAC 9/21/19

Rutherford NS

9/21/19

Diamond Alkali 004 CAR/USACE Delta (30)

0847 AO 31 - minnow traps

1 catfish - keep

1 small crab - return.

0935 - OFS loaded collected traps at dock. Head up river for more electro fishing

0951 B-014 for electrofishing

No Catfish eel bass

1 small mouth bass

1005 - Finish B-014.

10:06 B-015

1 Bass

10:16 End B-015

10:20 Back to B-014 further upstream. Head upstream

10:31 End B-014.

10:35 Begin B-015 on opposite side of river. Head downstream

1048 End B-015. Got 1 bass

1055 Begin ~~AO 28~~ B-016. No Keepers1114 - ~~Start to other side of river for~~~~AO 27~~ RAC 9/21/19 Finish B-016

No Keepers. Head downstream.

1202 AO 28 - all empty

RO CR 9/21/19

Rutherford NJ 9/21/19
(31) Diamond Alkali 00-4 LPR/VLACE Brite

1208 A029 AC 9/21/19
1111 Pumpkinseed - keep all 8 4
11 Perch - too small, return both
1111 Small crab - return, both ^{RC} 9/21/19
all 8 crabs

1215 A030 - One turtle (soft shell)

Return to wafer.

1245 Return to dock

Fish processing underway

- Suzanne Replinger

Jenna Rheuben

Aaron Edgington

1330 ROC leaves site

ROC 9/21/19

Rutherford NJ 9/24/19
Normal Alkali 00-4 LPR/VLACE Brite (32)

1730 ROC Checks to arrival at site

For night run on electrofishing boat

Willard Creek - Thoi Do, Jenna Rheuben

Mike Yarnes Aaron Edgington

Solitude/Aquarium Ben German

1810 - Leave dock on electrofishing boat.

Need Catfish, bass, crab, eel and at
downstream edge of study area 1 core
for spatial distribution.

Weather - 70's, partly cloudy

~~180033~~ - Begin electro-fishing at A076
^{RC 9/24/19} downstream of dock at Rte 3 bridge

190713 Finish A076 from just upstream
^{RC 9/24/19} of Rte 3 bridge to just ~~at~~ downstream
of Railroad bridge below Rte 3.
Got 2 bass & 1 catfish.

190735 Begin electrofishing at A077
^{RC 9/24/19} near Union Ave. Bridge (down stream
of bridge). At outfall on west side of
river.

190739 - Got 2 bass at A077, finish run.
^{RC 9/24/19} 0750 Start electro fishing at A078

North of Main Ave

190755 End A078 - Got several Catfish, No crabs
^{RC 9/24/19} ROC

2080 Ruth. B. d NS 9/24/19
Diamond Alkali 004 CAR/USACE Bush
20802 Start AO-79 & begin fishing.
Rec 9/24/19 Between Market Street & Main Ave

Bridges
20805 - No catch At AO-79.
Rec 9/24/19 Many Pike seen - don't need Pike

20809 Begin B 014 Near 2nd
Rec 9/24/19 Street Bridges

2086 End B 014 - out 1 bass

2087 Start B 015 - 2nd Street Bridge

2084 End B 015 - no catch

20812 Start AO 78 - 3rd time fishing

2044 - End AO 78 - got several

Cat fish again All set out

Bullheads not needed. Keep 1 white cat.

- First run on AO 78 - returned cats were
all bullheads, so only one white
cat returned on AO 78 both runs
At least 20 bullheads returned to river.
Some other white cats were too small &
returned.

2100 Return to teacher
Rec Case EG

no C already

RUTHERFORD, NJ BIOTA 9/25/19 (34)
DIAMOND ALKALI 004 CAR/USACE

09/25/19 DAN COOKE ARRIVED ON SITE
0700 CLEAR SKY, SUNNY 60°

PURPOSE: BIOTA COLLECTION OVERSIGHT
STOCKING THAI DO, BEN GERMAN (SOLITUDE)

NETS JENNA RIKHVEN, BRIAN CHURCH
KEVIN SONDAG, RON SMITH, CHRIS' (ASI)
MIKE YARLES, KATE MCPECK,
MARCO EDGINGTON

0800 - DUKE SALKIE ARRIVED + WENT WITH
STOCKING CREW, DC WITH NET CREW

- LEFT DOCK TO HEAD UPSTREAM FOR NETS

0817 - GILLNET BO23 - HAD TO CUT SOME NET MESH
- CARP 1 - THREW BACK TO GET FISH ON

- STRIPED BASS 1 - THREW BACK

- WHITE PERCH 1 1/2, 1/2 - DISCARDED

- YELLOW PERCH 1 - DISCARDED

0825 - RED FLOYD NET + RINSE DOCK

0834 - TROTLINE BO24 - NO CATCH, ALL
HOOKS BARE - RE-BAIT AND DEPLOY
JUST STINK BAIT, NO CHICKEN LIVERS

0840 - TROTLINE BO24 - NO CATCH, ALL HOOKS BARE

0845 - THIRD TROTLINE - EMPTY

DC 9/25/19

(35) RUTHERFORD, NJ

9/25/19

DIAMOND ALKALI ONLY LPR/USACE BIOTA

0854 - GILLNET A058

CAMP 1

WHITE PERCH 25

YELLOW PERCH 2

ALL DISCARDED

0900 - GILL NET REDEPLOYED

0906 - MOTILINES A063-2 - HOOKS BANG ON

0920 - ALL 3 LINES, NO-BAT + REDEPLOY

0928 - RETURN TO MADISON STAGING AREA

0940 - LEFT DOCK + MOTORED DOWNSTREAM

0943 - MOTILINE A064-2

- FIRST LINE EMPTY, NO-BAT WITH SINKBAT
AND CHICKEN LIMBS

1000 - OTHER 2 LINES ALSO EMPTY

1005 - GILLNET A059-2

- CAMP 11X

- SHAD 16

- PIKE 2

KEPT CATFISH - 1

DISCARDED ALL OTHERS - SUNFISH - PUMPKINSEED 1

- WHITE PERCH 42

- WHITE SUCKER 1

1024 - REDEPLOYED GILLNET

1030 - PROCESSED FISH, RINSED GEAR AND BOAT
LEFT STATION

DC 9/25/19

RUTHERFORD, NJ

9/25/19 (36)

DIAMOND ALKALI ONLY LPR/USACE BIOTA

1036 - MOTILINES 1060-2

GILLNET

- CAMP 2

- WHITE PERCH 8

> DISCARDED

1045 - REDEPLOYED GILLNET

1051 - MOTILINES A065-2 - ALL 3 LINES BANG

1105 - NO-BAT AND REDEPLOY

1120 - GILLNET A061 - NET FULL OF LEAVES
AND LIMBS

KEPT CRAB
DISCARDED OTHERS
CAMP 1
BLUE CRAB 3 ♂
WHITE PERCH 7

1140 - MOVING GILLNET DOWNSTREAM TO AVOID
THE LIMBS + SNAGS AT CURRENT LOCATION

1145 - REDEPLOYED AT PASSAIC RIVER BRK.

1200 - GILLNET A062-2

- WHITE PERCH - 8

- SHAD - 1

- BLUESH - 1

- STRIPED BASS - 2

- BLUE CRAB - 1

KEPT CRAB,
ALL OTHERS
DISCARDED

1206 - REDEPLOYED GILLNET

1215 - MOTORED UPSTREAM TO STAGING AREA

- BIRDS SPOTTED THIS MORNING - GREAT BLUE HERON,
KINGBIRD, CANADA GOOSE, BLACK DUCKS, SEAGULLS

1235 - RETURNED TO STAGING AREA

DC 9/25/19

(37) RUTHERFORD, NJ

9/25/19

- DIAMOND ALKALION 004 APR/USACE B/OTA
- 1345 - CALLED CHECK NAME ^{LET MESSAGE} TO DISCUSS CATTISH
- LAST NIGHT CREW CATCHED ABOUT 20 BULLHEAD CATTISH THAT THEY RELEASED AS NON-TARGET
 - HE ASKED TEAM TODAY TO KEEP THE ONE BULLHEAD COLLECTED TO MAKE UP THE SPECIMEN SITUATION OF CATTISH
 - SALLIE CALLED ROB LAW TO GET THE SAMPLING CREW TO KEEP ANY FURTHER BULLHEADS - LAW AGREED TO, BUT WANTED TO MAKE SURE FUTURE COMPOSITES WERE MONOSPECIFIC, AS HE DIDN'T WANT TO MIX SPECIES AS WAS DONE WITH SOME COMPOSITES IN 2009
 - WILL DISCUSS WITH NACE
 - FOR NOW, TEAM PROCESSED THE BULLHEAD
- 1435 - FINISHED PROCESSING FISH
- 1830 - MET TEAM AT MARKET
- 1900 - LEFT DOCK IN ELECTROSHOCK BOAT WITH BEN (SOLIMIDE), THAI, BRIAN, MIKE, KATE
- FULL MOON TIDE
 - CLEAR, 70° CLOUDY
- 1907 - A077 STOCKING RESULT STARTED NEW CULVERT UNDER HIGHWAY

DC 9/25/19

RUTHERFORD, NJ

9/25/19 (38)

DIAMOND ALKALION 004 APR/USACE B/OTA

- 1910 - CATTISH - 1 BULLHEAD
- 1912 - STOPPED STOCKING
- 1920 - STOCKING AT WHARF BY STAGING AREA AROUND LUTHER INLET TO THE NORTH OF PARKING AREA
- 1930 - BULLHEAD - 1
- STOPPED STOCKING
- 1937 - A 078 RIGHT BANK LOW PLEASANT VALLEY SEWERAGE COMMISSION PUMP STATION BY SEWERAGE CULVERTS PUMP & NURSERY
- SMALLMOUTH BASS #1
- A079 BY TURN IN RIVER WHERE HIGHWAY PASSES OVER
- SMALLMOUTH 2
- 1950 REACH A015 ON RIGHT BANK LOW BRIDGES AT MARKET ST AND UNDER BRIDGE
- 2003 - STOPPED STOCKING
- 2010 - CAN'T SHUT UNDER ST BRIDGE BECAUSE WATER IS TOO HIGH
- STOCKING B014 ON LEFT BANK
- 2018 - MOVED TO B015 ON RIGHT BANK
- 2025 - STOPPED STOCKING - NO TARGET FISH

DC 9/25/19

(39) RUTLAND, NJ 9/25/19
DIAMOND RIVER ON LPR/USACE BIOTA
2043 NETT AORI ON RIGHT BANK LONG
BUNKERS

SMALLMOUTH 2
2045 ENDING STOCKING - MOTORED TO DOCK
2055 OFFLOADED GEM AND FISH
2100 COOKS LEFT SITE

(DC) 9/25/19

R-M-R-D-J NJ 9/26/19
Planned Aikoi 004 LPR/USACE BIOTA

(40)

0725 RA Charlotte arrives on site for
biota sampling. Temp 80°.

0730- On flat boat (nets & fuel tanks)
Windward personnel - Jennie Rhueben
Brian Church Mike Yarnes
Kern Sunday of Agnes Ferry will be
Captain, with Ron Smith & Chris
Stefano of Agnes Ferry.

0735- Electric fish boat has left
dock with Tho. Mo, Kate McPeak
Aaron Edgington of Windward - Ben
Gorman of Solitude/Agnes Ferry.

0750 Flat boat leaves dock.

0800 Begin returning Gillnet at
B-023-3 upstream of Pth St. Bridge

1 Carp - returned to water

1 Pike returned to water

2 yellow perch returned to water

41 white perch returned to water.

0812 Reset net

0817 Pull trotline B-024-3

No catch.

0823 2nd trotline at B-024-3 No catch

0827 3rd trotline - No catch

No catch 9/26/19

(41) Rutter Field NS 9/26/19

Diamond Alkali 004 LAR/USACE Bents

0830 Reset B024-3 lines. Move to
next location downstream.

0835 Pull Gillnet A058-3

upstream of Market Street Bridge.

0840 white perch ^{NS 9/26/19} 16 total - return all
Shad - 3 total - return all

Reduply on other side of river.

0845 Pull trot line ~~from~~ A063-3 - Market St.

0850 Pulled + reset 3 trot lines.

but 1 catfish - keep.

0910 - Stop at dock. Run south of

Agua Fria will stay behind to join
the electric fishy boat.

0923 - Flat boat leaves dock.

0927 Pull A064-3 - upstream of
Douglas O'Neal Bridge. Trot lines

0940 - Pulled + reset 3 trot lines - got 1 catfish.

0945 A059-3 Gill net - at Douglas O'Neal bridge

1 Pike

1 Rock bass

28 white perch

4 Carp

2 white sucker

4 Shad

for CW analysis

Rutter Field NS

9/26/19

(42)

Diamond Alkali 004 LAR/USACE Bents

1006 - Finished at A057-3 did not
keep any of the fish caught.

1015 A060-3 Gillnet

upstream of Rte 3.

1020 - Catch:

4 Crab - 1 keeper

2 Carp

6 white perch

2 Shad

1033 Trot lines at A065-3

upstream of Rte 3.

Lost 1 line - disconnected from weights.

1057 Finish A065-3. No catch.

Made + deployed near trot line
to replace the lost one.

1115 Gillnet at A061-3

Between Kingsland Ave. & Rte 7.

1126 35 Shad - return to water

4 Perch (white) - return to water

1 Blue fish - return to water

3 blue crab - keep all

1 Cat fish - keep

see 9/26/19

1130 Reduplyed net

1140 Gillnet A062-3

for CW analysis 9/26/19

43) R. L. D. J. NJ

9/26/19

Diamond Alkal. 004 CAP/USACE Brute

1150 Pulled A02-3

4 white perch

1 striped bass

Re-deploy net.

1235 - Return to trailer -

R. L. Law of M. Manning is on site.

1240 - Electrofish boat returns to take.

1255 - Begin processing - Recording with
Coping Caliper and weight of coarct.
Tagging each separately with 1/3 tag.

- measuring eel length in tag, wrapping
in foil and weighing.

- Pull pectoral fin for biopsy for eggs

- Pull pectoral fin off catfish for eggs.
measure length, weight. (weigh
prior to removal of fin).

1340 Rob Law leaves site.

1345 Ron all processing.

RAC leaves site

RG C

9/26/19

R. L. D. J. NJ

9/27/19

Diamond Alkal. 004 LPR/USACE Brute

44)

0645 RAC arriving on site. Clear, 80°

0700 Trap/electro-fishing boat personnel -

Ben Gorman - Electrofish / Agassiz

Ther. Mo - Windward

Ron Mink

Aaron Edgington

R. Christie - Crab Smith

Trap-electro-fishing boat leaves dock.

Following personnel on flat boat for

gill net - flat line -

Windward - Jennie R. Lueben, Mike Jones

Brian Church

Agassiz - Kevin Sandy, Chris Stefano

Ron Smith.

0718 A 021 - Powerstation of ~~with~~ ^{12/2/19}
Wall Street bridge.

0722 B 021 - 3 traps empty Reddy

0724 B-020

11 Redbreast Sunfish - Return site

11 Pumpkinseed Return site

11 eel kept, 1 too small

1 Crab - Return - too small

0731 - Finish B-020 Reddy

0734 B-022 8th Street Bridge.

9/27/19

RG

(45)

Rt. Rd. N5

9/27/19

Diamond Alkal. 004 CRR/USACE Brite

0747 B-022 - finished.

11 Catfish - keep

~~11~~ eel - keep Reddy

0820 re baited crab traps at B-021 with chicken.

0817 A066

1 Pumpkin seed - Return.

1 eel too small - return

only find 1 trap due to high tide.

Will return later. Reddy

0820 - find second trap

1 small eel - return.

1 white perch - return. Reddy

Will come back for 3rd trap later.

Head to date.

0824 - At dock.

0835 - Leave date.

0836 A067 - just downstream of bridge

0840 2 crab traps both empty. Reddy

Head downstream

0845 A068 - just upstream of Rte 3 bridge.

3 Pumpkinsal Return

3 Bluegill Return

1 Catfish too small Return

3 eel - keep two Reddy

La C 4/27/19

Rt. Rd. N5

9/27/19

Diamond Alkal. 004

CRR/USACE

(46)

0854 A069 Control Cyn. Must bridge

3 Crab traps - empty. All chicken bait
to all 3. Reddy

0905 A070 Downstream of Kingsd Ave

0909 - One crab captured. Reddy

0910 - A071 just downstream of A070.

1 large eel - keep

11 small eels - return. Reddy

0920 Can't find 2nd trap - head downstream

0927 A072 just upstream of Rte 7

0930 - All 3 traps empty. Reddy

0934 A073 downstream of Rte 7.

0940 - 3 empty crab traps - add bait -
Reddy.0942 A074 - short distance downstream
of A073 - false clam
this is a gillnet.

0943 - A074 just downstream of gillnet

1 crab - keep

11 Shiner - return

1 small crab - return.

1 ~~the~~ pumpkinseed
11/27/19

1 Perch Reddy

9/27/19 Ro C

Rutherford NJ

9/27/14

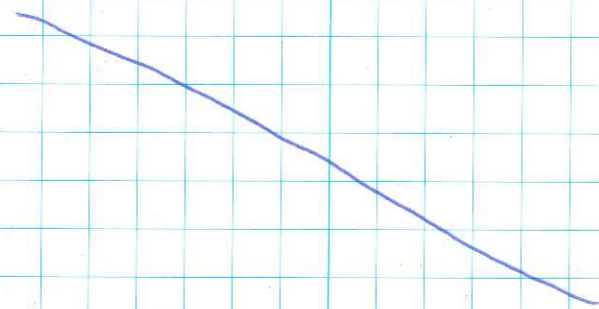
- 47 Diamond Alkal. 004 LPR/UPPER Bldg
 1004 Chased ~~Ac 3~~ ^{Ac 9/27/14} for missing trap -
 Could not find trap. Water now
 deep - should not be higher than trap.
 1015 Ron Smith coming on board electrofish boat.
 1022 ~~Ac 45~~ Electro fishing Ac 44 -
 for 9/27/14 downstream of Rte 3
 west side
 1040 - Catch large grass carp with
 Sculpin. Invasive species - kill it
 leave on bank of river.
 1047 Move to other side of river to
 electro fish Ac 45 (nothing collected
 on Ac 44).
 1105 - Finished Ac 41. No catch.
 1109 Ac 41 - Begin electro fishing, North of
 Rte 3. 11 bass - keep both.
 1133 Finish Ac 41
 1140 Electroshock Ac 019 upstream of
 Union Ave. Bridge.
 1143 Catch a grass carp. Take it
 ashore & kill it.
 1154 No catch a Ac 019.
 1200 Looking for more trap at Ac 66
 - Rte 3 - early - reduply
 RAC 9/27/14

Rutherford NJ

9/27/14

Manual Alkal. 004 LPR/UPPER Bldg (48)

- 1210 Start electro fishing at B 014
 Downstream of 8th Street Bridge.
 1224 Cross to west side at 8th
 Street Bridge & electro fish in
 downstream direction. B-015.
 1234 Got 2 eel at B-015. Keepers.
 1240 Electro fishing at B 014, north
 of 8th Street Bridge - east side.
 1249 11 catfish keep both
 Move to west side & fish both.
 Down stream - B-015
 1257 Nothing caught on B-015.
 1320 Back at trailer.
 1330 Begin processing - Croaks
 Both Suits are back.
 1350 Processing continues
 RAC Leaves Site



RAC 9/27/14

(49) RUTHERFORD, NJ

9/28/19

DIAMOND ALKALI CUY LPA/USACE BOTA

0630 DAN COOKE ARRIVED ON SITE

0650 LEFT DOCK ON STOCKING BOAT TO COLLECT
TRAPS DOWNSTREAM WITH BEN (SOLITUDE)

THAI DO, AMOC, KATE

WEATHER - CLOUD, 60°, WIND CALM
INCOMING TIDE

0743 - FARTHEST DOWNSTREAM PULLED EEL TRAPS

A074 - ONLY ONE TRAP BOAT VISIBLE, WENT
TO WAIT FOR LOW TIDE TO TIDY OFF R2

0749 - CRAB TRAPS A073 - ALL 3 EMPTY

0758 - EEL TRAPS - 1 SMALL EEL - DISCARDED
- 1 TRAP MISSING, HAVE TO RETURN
AT LOW TIDE

0815 - A071 - ONLY 1 EEL TRAP FOUND WITH
3 PUMPKIN SEED INSIDE

0820 - CRAB TRAPS, TWO EMPTY, 1 TRAP HAD
2 CRABS A070 BOTH MALE
EACH HAD ONLY 1 CLAW

0840 - A069 CRAB TRAPS, 1 MISSING,
2 EMPTY

0844 - EEL TRAPS JUST UPSTREAM OF RT 3
BRIDGE - 2 PUMPKIN SEED, 1 RED BELLIED
SUNFISH IN ONE TRAP, 5 SUNFISH IN
ANOTHER

(49) 9/28/19

RUTHERFORD, NJ

9/28/19

(50)

DIAMOND ALKALI CUY LPA/USACE BOTA

0908 A067 - 2 CRAB TRAPS ADJACENT
TO STAGGERS MEAT, BOTH EMPTY

0920 A066 - EEL TRAPS

- FIRST TRAP 1 EEL, 3 SUNFISH

- SECOND TRAP EMPTY

- THIRD TRAP 3 SUNFISH

0941 - B021 CRAB TRAPS - 1 CRAB MALE

0947 B020 EEL TRAPS - 2 SMALL EELS - DISCARDED
- 1 EEL RETURNED

0954 - B022 - EEL TRAPS NEAR RT 3 BRIDGE

- 50 MS SMALL SUNFISH, BASS, PERCH

1 SMALL EEL - ALL DISCARDED

1015 - RETURNED TO DOCK TO OFFLOAD TRAPS AND
COLLECTED FISH

1035 - AT COUNTRY BRIDGE DOWNSTREAM OF THE
ROUTE 3 BRIDGE STOCKING ALONG
RIGHT BANK GOING UPSTREAM A042
- SMALL MOUTH BASS 1

1046 - STOPPED STOCKING AT RT 3 BRIDGE,
CROSSED RIVER TO A043 AND
STARTED STOCKING DOWNSTREAM ON
LEFT BANK

- LARGEMOUTH BASS 1 - W/ GUT WITH TAIL GUT
BUT NOT AT ALL

1101 - STOPPED STOCKING AT COUNTRY BRIDGE

(50) 9/28/19

(51) RUTHERFORD, NJ

9/28/19

DIAMOND RIVER 004 LPM/USACE 8/07A

1111 STARTING STOCKING A018 LEFT BANK, JUST
UPSTREAM OF LOWER BOATHOUSE

SUTEL MOUTH BASIN 11

1134 CROSSED RIVER TO CULVERT THAT COVERS UNDER
ROUTE 21 TO STOCK RIGHT BANK DOWNSTREAM
A077

1141 - STOPPED STOCKING

1155 - MET WITH TRAP BOAT AT RT 3 BRIDGE
DO + COCKE TRANSFERRED TO TRAP BOAT,
JOHN + MIKE TRANSFERRED TO STOCK
BOAT - STOCK BOAT RETURNING TO DOCK
TO PROCESS FISH - STOCK BOAT RND
TO WAIVE SITE

1158 - RETURNED TO COMMUNITY DOCK + FOUND LAST
CRAB TRAP - EMPTY - AS YARD RECOVERED

1210 - FOUND ANOTHER LOST GEL MAP A071

- 1 CRAB MALE

- 1 SMALL CATFISH - DISCARDED

1235 - FOUND LAST GEL MAP AT FINEST
DOWNSTREAM LOCATION - EMPTY

1315 - RETURNED TO DOCK - OFFLOADED GEL

1330 - PROCESSING FISH/CRABS IN PROGRESS
COCKE LEFT SITE

DO 9/28/19

(52)